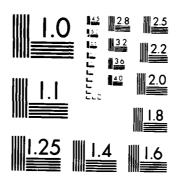
COOPER RIVER REDIVERSION PROJECT LAKE MOULTRIE AND SANTEE RIVER SOUTH CAR. (U) ARMY ENGINEER DISTRICT SAVANNAH GA FEB 76 AD-8149 576 1/4 -UNCLASSIFIED F/G 8/7 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963 A



# LAKE MOULTRIE AND SANTEE RIVER SOUTH CAROLINA

### **COOPER RIVER REDIVERSION PROJECT**

AD-A149 576

## POWERHOUSE FOUNDATION ANALYSIS

APPENDIX A
SUBSURFACE EXPLORATION





U. S. ARMY ENGINEER DISTRICT, SAVANNAH CORPS OF ENGINEERS SAVANNAH, GEORGIA 31402 FEBRUARY 1976

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### COOPER RIVER REDIVERSION PROJECT

### POWERHOUSE FOUNDATION ANALYSIS

### APPENDIX A

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U.S. ARMY ENGINEERING DISTRICT, SAVANNAH
CORPS OF ENGINEERS
SAVANNAH, GEORGIA
FEBRUARY 1976

### COOPER RIVER REDIVERSION PROJECT POWERHOUSE FOUNDATION ANALYSIS

#### APPENDIX A

(Bound in Separate Volum**e**)

### SUBSURFACE EXPLORATION

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3	POWERHOUSE CROSS SECTIONS -AT BASELINE STA. 597+75 (D-D') -AT BASELINE STA. 589+67 (C-C')		

### COOPER RIVER REDIVERSION PROJECT POWERHOUSE FOUNDATION ANALYSIS

### SECTION 1

SAVANNAH DISTRICT CORE BORING FIELD LOGS

U.S. ARMY ENGINEERING DISTRICT, SAVANNAH
CORPS OF ENGINEERS
SAVANNAH, GEORGIA
FEBRUARY 1976

-30.8 <sup>4</sup> -30.8 <sup>4</sup> -30.8 <sup>4</sup> -30.8 <sup>4</sup>	iversion  CLASSIFICATION OF MATERIALS (Description)  d	St. Ste % CORE RECOV. ERY e	phen, BOX OR SAMPLE NO £ 98	(Drilling time, uaucathering, etc., 0 20 40 g	ater loss, depth of
80 -30.84 -30.84	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOV ERY	BOX OR SAMPLE NO	(Drilling time, uaucathering, etc., 0 20 40 g	ARKS uter loss, depth of , if significant)
30.8 <sup>4</sup>	(Dewription)	RECOV. ERY	SAMPLE NO f	(Drilling time, u.a. u.e.sthering etc., 0 20 40 g	ater loss, depth of . if significant)
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90			102	50	<u>.                                    </u>
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90 30.81 3p		!		100/0.81	
90 30.81 3p			105	52	<b>+</b>
30.81 30 92 en	· Gray silty fine sand	,	106	54	<i>•</i>
-30,8 <sup>4</sup>	, ., .,	1	107		
-30,8 <sup>4</sup>		<u> </u>	108		
-30,8 <sup>4</sup>		:	109	46	
-30,8 <sup>4</sup> -30,8 <sup>4</sup> -30,8 <sup>4</sup>		ļ	110	39. <b>- €</b> \	79
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-30.81			112		
-30,8 <sup>1</sup> na				100/0.81	
-30,8 <sup>1</sup> na			115	100/0.9	
-30,8 <sup>1</sup> na		i :	116	35	
-30,8 <sup>1</sup> na			117	35	
30.8 <sup>1</sup>	Black fine sandy silt				
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RILLING	FOG	(Cont S	heet) VATION TOP OF HOLE 60.09			Hole No.	
tO3EC1			INSTALLATION				SHEET 3
	Coor	er Riv	er Rediversion		ephen,		OF 8 SHEETS
LEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	RECOV	SAMPLE	(Drilling tim	e. unter low depth of
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43.5			10 <sup>0</sup> Contact		: <sub>2</sub>	i	
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	-		finer limey matrix, well				
			indurated.		1	1	
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			' 108.5' to 109.2' Unindura	ted RQD-	76	Run 5.01,F	Rec.4.91,CL0.1
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	1 -		110.4' to 110.9' Unindura	tea	3		
			110.9" to 111.4" Unindura:	• ad	,	1	
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			114.8' to 115.9' Unindura	ted	4		
			115.9° to 116.5° Dense had	- 1	4	•	
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	116		zone -Continued on Sheet #4		 - •	•	
	-	]	-continued on sheet #4****				
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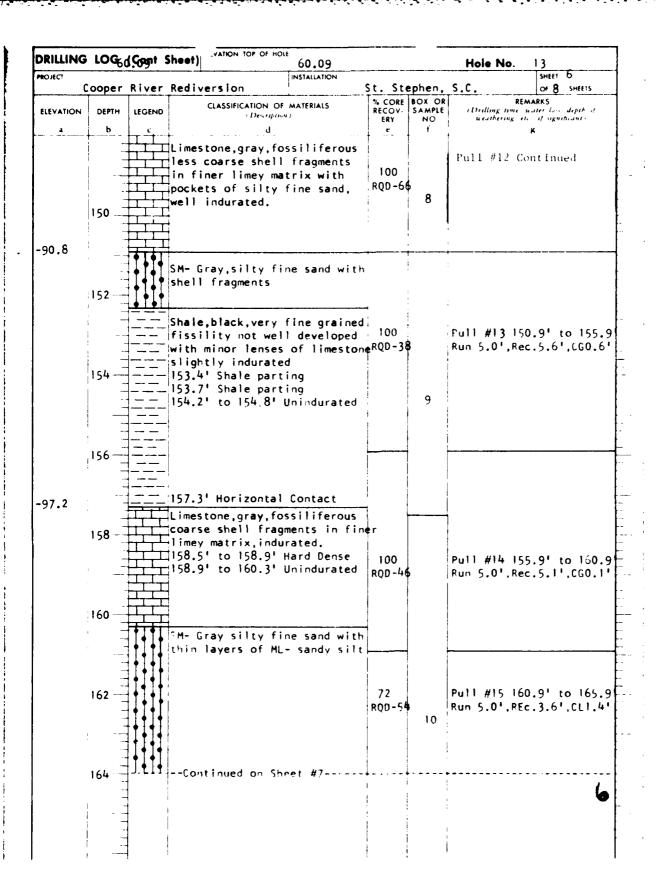
DRILLING	LOG	(Cont S	heet)	VATION TOP OF HOLE	60.09			Hole No.	13
PROJECT					NSTALLATION				SHEET 4
	(	Cooper	River	Rediversion	5	t. Ste	ohen,	S.C.	OF 8 SHEETS
				CLASSIFICATION OF A	AATERIALS	" COPE			MARKS
ELEVATION	DEPTH	LEGEND		(Description)		RECOV	SAMPLE		water loss, depth of the
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	<del></del> -	<u> </u>				<b>†</b> `	•	•	' <b>k</b> ''
	_			st <b>one.</b> gray,fos					
	-	++++	much	shell fragmen	nts in finer	r	:		
			lime	y matrix, wel	l inducated				
		1111	i					i	
			•					:	
	118	++				98	İ	: :::::11 #6 116	.9' to 120.9
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		did		y fine sand		:	!	!	
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	122	1	indu	rated		-	:		
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	-	1111	SM-	Light gray ca	careous	ł	!		
		╡┇┥┇┾		y fine sand	Terri o so:	98	1	Pull #7 120	,91 to 125.9
	_	1111	, 3116	y fine seno		'ROD -18	}	(Pun 5.01, Re	c. 4.91,CLO.
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	124	110				•	Ì	1	
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		1		Dark gray calo	careous	i	7	 	
		<u> </u>	silt	y fine sand		:		<u> </u>	
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-65.8			125.	9' Horizontal	Contact				
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	_	++++		coarse shell		ı			
í	_			iner limey ma					
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				rated.	land Dr			†	
		+++-	127.	3' to 127.8' i	iard, vense	į		!	
	128		•			94		: p., 11 #8 125	.9' to 130.9
		╁┸╁┰┸┰				-	L.		c.4.7'.CLO.3
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		<del>┊┰┸┰┺</del> ┥	128.	7' to 129.0' i	tard,Dense		•		
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-69.7		1111							
	130	Ⅎ℄℄℄	SM-	Dark gray, ca	leareous	!		•	
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		┧┡╽┿╎	SIIE	y line Sand		į			
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-71.1	-		1 1	stone, gray, for	s s i l i for our	<u> </u>	1		30.9'to 135.9
	-	1				) ;		Run 5.0' F	ec 4./'
	132 -			pockets of s	iity tine			CLO .3*	
	1)2 ~	+1,1,	sand			!			
	-			2' to 132.6' i					
	-	1-1	-Cont	in <mark>ued o</mark> n Shee	#5			<b>_</b>	
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DRILLING LOG (Cont Sheet) Hole No. 60.09 SHEETS PROJECT INSTALLATION Cooper River Rediversion St. Stephen, S.C. OF 8 SHEETS % CORE BOX OR REMARKS CLASSIFICATION OF MATERIALS (Drilling time, water loss depth of weathering, etc. if significant) ELEVATION DEPTH LEGEND / Description / No d Limestone, gray, fossiliferous Pull #9 Continued much shell fragments in finer limey matrix, with pockets of silty fine sand well indurated 132.6' to 135.9' Unindurated 134 94 RQD-62 136 -136.1' to 136.7' Hard, Dense 137.5' to 137.9' Hard, Dense Pull #10 135.9' to 140.9 92 .138 Run 5.0', Rec. 4.6', CLO.4' RQD-60 139.8' to 140.1' Hard, Dense -80.8 SM- Light gray silty fine sand with occasional thin layers of ML- Dark gray fine 142 sandy silt 78 Pull #11 140,9' to 145.9 ROD-O Run 5.0', Rec. 3.6', CL1.4' Pull #12 145.9' to 150.9' Run 5.0' Rec 4.71 -97.2Limestone, gray, fossiliferous CLO .3' less coarse shell fragments 148 □ in finer limey matrix well indurated. 1-J----Continued on Sheet #6-----



DRILLING	LOG	(Cont S	heet)	ATION TOP OF HOLE	60.09			Hole No		<u>-</u>
PRC EST	C	ooper R	iver Re	diversion	nstallation S I	t. Step	hen,	s.c.	sheet   OF 8	7 SHEETS
ELEVATION		LEGEND		ASSIFICATION OF M		% CORE	BOX OR	Desting t	REMARKS	det trad
.a	ь			d		ER)	10		K	
	•		SM- Gr	ay silty fir	ne sand					
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	166			ly indurated						
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			Tine 5	and layer						
			167.9'	Shale parti	i ng					
	168									
	. 00		168 61	Shale parti	ina	96			165.91 t	
		·		Shale parti		RQD - 74		Fun 5.01	.Rec.4.8'	,CLO.2
				Shale parti						
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	1.70	:	170.01	Shale parti	ing					
	, 0		170.4	Shale parti	ing		11			
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		:								
	172	:								
117.5	.,-	!	172.6	100 Contact	t					
116.5								-		
				one, gray, for with occasion						
				fragments, ve		96			170.91 t	
	174		indura	_	•	RQD-72		Run 5.0'	,Rec.4.8'	,CLO.2
				to 174.1' S	SM- Silty					
				and layer	- M - C - 1 A					
				to 175.9° S and layer	om- Silty	1				
	176			to 179.91	SM- Silty					
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			( (	ORE LOSS)		:	1 2			
						20			175.9' t	
						RQD-2¢	)	Run 5.01	.Rec.1.0'	.∈∟4.0
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	180		Conti	nued on Shee	et #8		·			
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DRILLING	LOG	(Cont	Sheet)	EVATIO	N TOP OF H		60.09				Hole No.	13			
PROJECT		<u>:</u>					ALLATION				71016 140.		SHEET	8	
		Cooper	r River	Redi	versio	1				<u>jen, 5</u> ,	r			SHFE1S	
ELEVATION	DEPTH	LEGEN	D ,	CLASSIF	FICATION ( Descript		FRIALS	;		BOX OF SAMPLE NO			$meT_{\gamma}$		
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	182		fine	sand	layer		3,				•				
		+													
			±-183.0 ∵183. <i>6</i>	l'to L'Lou	183,4° √angle	Uni	ndurat: tact	e d			Full #19				
-123.3									FQD+C	<b>4</b> •	. *** 5.01,1	100	.4.7		• 5
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	104				not we ly fine										
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	186		- 186 1	t to	186.51	450	Shale			4			,		
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									100		Pull #20				
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					190.41						!				
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	. , 0		- 190.5	, 45	Shale	par	Lind								
-118.81	-		190.9	Bot	tom of	Hol	e			!					
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Hole No. N 581,340 E 2,326,070 SHEET DRILLING LOG Sout itlantic St. Stephen. 10 SIZE AND TYPE OF PLT 1 3/8" I.D. Splitspoon & Cooper River Rediversion MSL 12 MANUFACTURER'S DESIGNATION OF DRILL Sta. 538+60 on CL Damco Savannah District .. STURBED HOLE NO (As shown on drawing title and tile number) 13 TOTAL NO OF OVER- 100 BURDEN SAMPLES TAKEN -14 TOTAL NUMBER CORE BOXES 13 NAME OF DRILLER 15 ELEVATION GROUND WATER 47.1 21 Nov. 70 T.W. Scott DIRECTION OF HOLE 19 Nov. 70 2 Dec. /0 17 ELEVATION TOP OF HOLE +51.6 THICKNESS OF OVERBURDEN 75.41 18 TOTAL CORE RECOVERY FOR BORIN . ..75... CF PTH CHILL: C INTO ROCK 126.61 19. SIGNATURE OF INSPECTOR 202.01 G.J Kraynak TOTAL DEPTH OF HOLE BOX OR SAMPLE NO CLASSIFICATION OF MATERIALS Description REMARKS Oralling time, water loss, depth of 0 20 40 9 60 80 ELEVATION DEPTH LEGEND +5176--0.0 29.7 M-Black silty organic fine W.T. 3.0' sand Date 20 Nov. 70 5C-Gray clayey fine sand Depth to water during drilling. 21 SM-Tan silty fine sand 10 `\_ W.T. 3.1' 26 5 | 45 Water table reading 31 hrs. after اُسِ ń 22 hale completed. Gray silty clay 72 thin layers in 26 Water Content% tan silty fine sand 51 50 92 63 100 44 SM-Gray silty fine sand 61 68 30 Dark gray silty clay 7:30 thin layers in gray SC-14 \* silty fine sand 18 8 90 100/0 91 SM-Silty very fine sand 46 SC - Dark gray silty clay - 60 163 thin layers in gray silty 9 14 LAB CLASSIFICATION fine sand ELEV. CLASS 1.8-3.6 SP 26 31 26 28 5M-Greenish gray silty fine 10 . 100/0.81 25.3% 100/0.71 100/0.31 60 ... Continued on Sheet #2-----BLOWS PER FOOT: Soils field classified in accordance with the Unified Number required to drive |13/8" 10 splitspoon with Soil Classification System. 140 lb, hammer falling 3011.

		+51.6			Hole No.	18
		INSTALLATION				SHEET 2
ooper	River	Rediversion S	t. Ste	phen,	S.C.	OF 9 SHEETS
DEPTH	LEGEND	CLASSIFICATION OF MATERIALS $(D_{th}, op_{them})$	% CORE RECOV- ERY	SAMPLE	Drilling time. v	AARKS cuter loss, depth of if significant)
. £0.0	मांगा	d	, e	!	100/0.3'	ik .
	+1+1				100/0.51	
 	1 - 1 -	SM-Gray silty very fine sand		İ	100/0.81	
70				i !	94	
	111				100/0.8	
	<u> </u>	and the Confederation of the C	: :	! 	¦ <b>8</b> 5	<b>⊕</b> :
		Shale,black,fine grained	:	i 		usal 75.41
80 - =		sandy,calcareous clay shale	-		NOTE:Scale o	hange at 80
_		well developed, indurated.	Q/s	: 	011 #1 75 #	1 92 4.1
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86						
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88			98 800-90			
-				:	1.2 12.0 , 116	
90						
	ŢŢ,	91.6' Horizontal Contact Limestone, gray, fossiliferous	!	3		
92	J-J	-Continued on Sheet #3	! !		,	In.
	!					10
- : -	ļ					ى <b>ل</b>
	i			'		
	80	80	Shale, black, fine grained sandy, calcareous clay shale fossiliferous, fissility not well developed, indurated.  82	Shale, black, fine grained sandy, calcareous clay shale fossiliferous, fissility not well developed, indurated.  80	Shale, black, fine grained sandy, calcareous clay shale fossiliferous, fissility not well developed, indurated.  80 - sandy, calcareous clay shale fossiliferous, fissility not well developed, indurated.  82 - 1 1  84 - 1 1  86 - 1 1  87 - 1 1  88 - 1 1  89 - 1 1  89 - 1 1  80 - 1 1  80 - 2 1  80 - 3 1 1  80 - 3 1 1  80 - 3 1 1  80 - 4 1 1  80 - 5 1 1 1  80 - 6 1 1 1  80 - 7 1 1  80 - 7 1 1  80 - 8 1 1  80 - 90 1  8	### DEPTH LEGEND

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		(Cont S	<u></u>			Hole No.	18
UECT	•		INSTALLATION				SHEET 3
	ooper	River	Rediversion St.	<u>Stepher</u>		<b>4</b>	or 9 sheers
EVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOV ERY	BOX OF SAMPLE NO		ARKS uter loss depth of the remarkanter
0.4	92 b	ļ., c.	<u>d</u>	ť		•	K
	-	<del>                                     </del>	11	;		Pull #2 Cor	sefoul 1
	! -	<del>├</del> ┰┸┰	Limestone, gray, fossiliferous			1011 "2 (6)	ittimed
		<b>***</b> *********************************	much coarse shell fragments				
	-		in finer limey matrix, well				
	1	+	indurated.	,			
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	98	111		100		Pull #3 94.4	1 102 //1
				RQD-98	1	Run 8.01, Pec	2 C 102.4
				NQU - 34		. Nun o.o , rec.	.0.5 .000.5
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		1111					
	100	<del></del>		1	4		
	102	+	102.4' to 105.1' \$lightly				
		41-1-	indurated		ŀ		
	-	177	,	,	}		
	- [		ļ	100	1	Pull #4 102.4	to 105.11
	<b>.</b>	T <sup>1</sup> T +		RQD-44		Run2.71, Rec. 2	.71
	104			i			
	-1	TT		1	i		
	1	TT		:	1		
	- 1		105.1' to 105.9' well indurat	<b>a</b> d			
	- ±	<del></del>	Toyar to rayiy werr madrat				
•			105 01 1 - 4 -1 - 4	į		Pul1#5	
.3	106		105.9' Low Angle Contact	1		105.1' to 11	2.5'
			Sandstone, gray, fine grained .	1		Run 7.41	
			calcareous, slightly indurated	1		Rec 3.8'	
	1	4	. 2 , =	Î	í	CL 3.6'	
9	- 1		;	+	5		
		1111	SM-Gray silty fine sand	1	!		
	108	J_LLI	Continued on Sheet #4				
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	-	1		1	•		- 1/
	. 7	}	1	i	1		**
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KILLING	LOG	(Cont S	heet) VATION TOP OF HOLE			Hole No. 18	
IDJECT			INSTALLATION			·	SHEET 4
Coo	per Ri	ver Re	diversion	St. St	ephen		OF 9 SHEETS
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOV- ERY	BOX OR SAMPLE NO	(Drilling time. u	ARKS uter loss, depth of . if significant)
-56.4	10-8	1 · c	d	e e	f	i	<u>g</u>
	_	<del>             </del>	SM- Gray silty fine sand	1	1		
	] =	<b>                                     </b>	•	Ì		Full #5 Con	tinued
		11111			1	1	
	1 -	1 1 1 1 1 1					
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	-	┧┥┃┥╽╎		<u> </u>	!	1	
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		11111			-	1	
	=	1 <b>1</b> 4]4			†	!	
	-	1   I   I   I		59		Pull #6 112.	
	116 -	┦ <b>╿</b> ┩╏┩╏		RQD-30	1	Run10.01,Rec	.5.91,CL4.1
	=	<b>         </b>		1		İ	
	-	<b>†                                    </b>				1	
		1 <b>4</b> ] <b>4</b> ] 1			İ		
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		₹ <b>∮</b> ┇∳┇∤		1	1	}	
	118 -	14141					
	-	11414	.0				
67 <b>.</b> 3.		1010	18.9' Low Angle Contact	4	1		
	-		limashana aran fareilifa-ana	1	ł		
	-		Limestone, gray, fossiliferous much coarse shell fragments	`	i	t	
	120		in finer limey matrix, well		į		
	-	177	indurated				
	! =	177			1	i	
	;				1		
	-	11111		}	]	1	
	122	<del>                                     </del>					
	122		122.0' to 122.5' Dense	1_	]		
			100 cl 100 ld			Pull #7 122.	5' to 130.0
			122.5" to 128.4" Unindurated	, : 	,	Run 7.5', Re	e3.8'
		<u> </u>		ł	6	CL 3.7'	
	: -			1			
	124 -	-4-1-1	-Continued on Sheet #5		<b>.</b>	<b></b>	• • • • • • • • • • • • • • • • • • • •
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	LOG	(Cont S	theet, +51.6				Hole No. 1	
DIECT C	ooper	River	Rediversion	INSTALLATION	St. Ste	ohen.	S.C.	SHEET 5 OF Q SHEETS
			CLASSIFICATION OF		% CORE	BOX OR	REM	ARKS
VATION	DEPTH	LEGEND	( Description	• )	RECOV- ERY	SAMPLE NO.	(Drilling time, u uesthering, etc	
244	124	l c	d		e	<u>f</u>	1	K
	i -	11-1	Limestone, gray, fo	acciliforous		1	Ţ	
					1		. n. 11 #7 C 1	
	i		much coarse shell		1	,	Pull #7 Cont	inuea
		<del>                                      </del>	in finer limey ma	etrix unin-				
			durated.			1	1 *	
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	126						1	
	-	11,1			51	i		
	_	$\Box$			RQD-17	i	[	
						]	}	
		14-1-				i	:	
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	128	H-1-1-1	100 11					
	125		128.4' to 130.0'	Well indura	ted			
		4						
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		- L - L				6		
			f			,		
	130		130.0' to 139.0'	Climbala				
	. ,0		130.0 10 139.0	3 i ignt i y				
	-		indurated			:	1	
	-	4,4,			: !			
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	132 —				i			
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		111						
	134	<del>┞┱┸╺</del> ┸┤			44		0 11 //0 120	01 . 107 61
					1 2		Pull #8 130.	0' to 13/.5
	-	<del>                                     </del>			RQD-16		Run 7.51, Rec	.3.3',CL4.2'
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	0	, , , , , , ,			1		Pull #9	
	138						137.5' to 1	47 5!
	1	<del>┞╌┡╶╏┈┡</del> ╌┯╌╡			' i			Rec 2.4'
	:					ı	CL 7.6'	Vec 2.4
	1		139.0' to 139.7'	Well ind-			GL 7.0	
	i	$T_{\tau}L_{\tau}$	urated		I			
		1						
	140	7	-Continued on Shee	et #6	<del></del>			<del></del>
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	4	1						13
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	LOG (	Cont S	heet, EVATION TOP OF HOL	<u>.</u>			Hole No. 18		
JECT .				INSTALLATION				SHEET 6	٦
	Cooper	River	Rediversion	<u> </u>	St. Steph	ien, S.	Ç	OF 9 SHEETS	4
EVATION	DEPTH	LEGEND	CLASSIFICATION OF (Description		% CORE RECOV- ERY	BOX OR SAMPLE NO.	REMA (Drilling time, wi weathering, etc.	ater loss, depth of	
88.4	1/20	· C	d		e	f	<u></u>	3	
	1 🛨	<del>↑</del> ∮∮↓∣	SM- Dark gray si	tv fine					ŀ
	-	∳T∳T!	sand, calcareous	•					
	=	1414;					Pull #9 Cont	inued	١
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	-	I 🛊 T 🛉 🛭			1	ŀ	}		F
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		<b>†                                    </b>				}			ŀ
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	7	<b>                                     </b>			RQD-0				ļ
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		14141							ı
		<b>†! †!</b> !				[			
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	∃'	14141				7			┪
i	148	<b>1</b> 414				<b>'</b>			ŀ
		<b>†</b> ]¶]							Ł
		<b>†</b>   †							F
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		1 <b>† 1 †</b> 1							F
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ļ	7	<b>                                     </b>			ļ	j			ļ
i		14141							t
1	152				36		Pull #10 147.	E! +0 157 E	t
ĺ		111			RQD-O		Run 10.01.Rec	3.61 CL6.4	F
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1	156 7		-Continued on Shee	+ #7					F
ļ	156		-continued on shee	· π/	<b> </b>				ŀ
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	100	(Cont S	471.0			Hole No.	<u> 18</u>
onet Coc	per Ri	ver Re	diversion	St. S	tepher	n. S.C.	SHEET 7
LEVATION		LEGEND	CLASSIFICATION OF MATERIALS	<del>, </del>	BOX OR		MARKS
			(Description)	ERY	NO		to the against and a
104.4	. 156	4141	SM- Dark gray silty fine sand	- <u></u> -		•	•
		1412	<u> </u>	•	7	+ Pull #10	) Continued
	-		Sandstone, dark gray, fire grained, slightly indurated		i		
.05.9			157.5' Low Angle Contact				
	100		Shale, black, very fine grained		•		
	158		fissility not well developed				
	4		slightly indurated				
		;					
	160			62		Pull #11 15	7.51 to 162.5
		:		RQD- 4	10	Fun 5.01, Red	:.3.1',Ct1.9'
	7						
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	162				•		
	- • - •				ı		
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	164				ı		
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.i.4.3		:	165.91 Low Angle Contact				
	166		Sandstone, gray, fine grained				
	. =			100		Pull #12 162	2.5' to 171.2
			3	PQD-86			.9.41,CGO.71
			Shale, black, fine sandy				
	;		fissility not well developed	;			
	168		slightly indurated				
117.0			168.6' Contact	1			
	_		Sandstone gray well indurated	!	0		
	$\exists$		Shale, black, very fine grained sandy clay shale, fissility		9 .		
	}		not well developed unindurate	d .	•		
	1/0 -		• • • • • • • • • • • • • • • • • • • •				
	- 1						
			1 41- 6 171 21				
119.6	-1		Low Angle Contact 171.2'			D 11 //1 ) 17	
	Ŧ	TTT	Limestone, dark gray, fossilisé much coarse shell fragments	rous		Pull #13 17 Run 10.2' Rec	1.2' to 181.4
	172 -	TT	in finer limey matrix,	•		3G 0.51	117.7
	4		slightly indurated				
	1	J	-Continued on Sheet #8				
	4						15
	!						•
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	roe	(Cont S	heet; EVATION TOP OF HOU +51.6				Hole No.	18
ожст С с	operRi	ver Re	diversion	INSTALLATION St.	Steph	nen . !	S.C.	SHEET 8
			CLASSIFICATION OF		% CORE	BOX OR	REM	ARKS
LEVATION	DEPTH	LEGEND	( Description		RECOV. ERY	SAMPLE NO.	(Drilling time, u ueathering, etc	ater loss, depth of , if significant)
-120.4	122.	c	<u>d</u>		<u> </u>	<u> </u>		<u> </u>
	_		Limestone,dark gr					
	_		ferous much coars			•	Pull #13 Co	ntinued
	_		fragments in fine matrix, slightly i					
	_		matinx, singificity	modrated.	-	ļ 1		
122.4	174_		174.01 Low Angle	Contact				
	''' =		Shale, black, very	fine grained	}			
	=		fissility not wel			i <b>!</b>	! !	
			slightly indurate	ed.				
	i =				!	!		
	=				100	10	1 ! !	
	176				100 RQD-32			
	=				QU- J2		•	
	178 —							
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	=							
	_							
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	180							
	_	<u>  </u>			<b></b>	,	·	
	182	;						
	_							
31.2			182.81 100 Contac	:t				
			Limestone, gray, fo					
			dense,well indura			11		
	184		183.51 Low Angle	Contact				
			Shale, black, fine					
			fine sandy clay s		72		  Pull #14 181	/ul an 101 :
			<pre>shell fragments,s indurated.</pre>	siightiy	RQD-56		Run9.9', Rec.	
	_		madiates.				Number	, ,,
			185.7' to 188.9'	Unindurated				
	186				l i			
				1		!		
i						:	l	
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1	188		-Continued on Shee	et #9				·····
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RILLING	LOG	(Cont S	heet, EVATION TOP OF HOLE	•			Hole No.	8
ecit Y				INSTALLATION				SHEET Q
	ooper	River	Rediversion	St.	Stephen		+	OF 9 SHEETS
FLEVATION	DEPTH	LEGEND	CLASSIFICATION OF (Description		% CORE RECOV ERY	SAMPLE NO	(Dilling time u	ARKS  ater for depth of  it significant)
136.4	.188		d Shale,black,fine		· •	!	:	Ķ. — —
137.3		1	fine sandy clay s			11	Pull #14	Continued
137.3			shell fragments, i 188.9' Low Angle	Contract	<del>-</del>		•	
			Limestone, gray, fo					
	190		dense,well indura				•	
			190.4' to 191.3'	Slightly			r.	
		+ + + + + + + + + + + + + + + + + + + +	indurated					
-139.8			191.41 Low Angle	Contact				<del></del>
		<del></del>	Shale,black.very		d ·		:	
	192		sandy clay shale,					
		:	fragments, fissili					
		:	developed, slight!	y indurated		12		
	194							
1-3.3		1	194.9' Low Angle	Contact	<b>-</b>			
		H	Limestone, gray, fo	ssiliferous				
	-		dense,well indura	ited				
	196 -	1111	10/ 11				! <b>₹</b>	
-144.8	-		196.4' Low Angle		100		Pull #15 191	-
		1	Shale,black,very	fine graine	dkon-ya		Run 10.71,Fe	c, 10, 41, 650
		!	sandy clay shale,	unindurated	į			
							<u>.</u>	
	198	<del></del>					i I	
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		<del></del> .			1			
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	200				1	13		
		<u></u>			1	•	ı	
		j- <u>-</u> -	Limestone, gray, fo	ssiliferous	-			
-150.2 -150.4	202		well indurated		1			
	702		Bottom of Hole 20	2.0'				
		1	THE PERSON NAME OF THE PERSON					

N 582,575 E 2,326,770 Hele No. 24 NETALLATION DRILLING LOG St. Stephen, OF 9 SHEETS South, antic 10. SIZE AND TYPE OF BIT 1 3/8" I.D. Splitspoon & 11 DAYUM FOR ELEVATION SHOWN (THM or MS 4x5 2 Core BBI PROJECT Cooper River Rediversion
LOCATION (Coordinates or Station) Sta. 605+94, CL MANUFACTUREN'S DESIGNATION OF BRILL 3. DRILLING AGENCY Damco Savannah District DISTURBED UNDISTURBED TOTAL NO. OF OVER-4. HOLE NO (As shown on drawing title and file number) 24 14. TOTAL NUMBER CORE BOXES NAME OF DRILLER 15. ELEVATION GROUND WATER T.W. Scott 3 Feb. ISTARTED 16. DATE HOLE 1 Feb. 71 4 Feb. 71 E VERTICAL TINGLINED \_ DEG. FROM VERT. 17. ELEVATION TOP OF HOLE 56.81 17.8 THICKNESS OF OVERBURDEN 18. TOTAL CORE RECOVERY FOR BORING 53 3 DEPTH DRILLED INTO ROCK 157.6 19. SIGNATURE OF INSPECTOR Earl F. Titcomb, Geologist 175.4 TOTAL DEPTH OF HOLE (Drilling time, water lose, depth of weathering, etc., it eignificant)
0 20 40 g 60 80 CORE BOX OR SAMPLE NO. CLASSIFICATION OF MATERIALS (Description) ELEVATION DEPTH LEGEND \*WC % 8.5 SM- Coarse silty sand, brown SC- Coarse clayey silty sand, mottled orange & brown, very high sand content 80%.
Minor small gravel 15.0 - 37 #WC4% 17.4 Minor small gravel 15.0' becomes very clayey, clay in 45 \*WC % 3.5 thin layers of gray CL VT\_13.31 -1-71 - 21 Refusal to fishtail 17.8' Scale change at 20. 39.0 Sandstone, red, moderately 20 \_\_\_ indurated Pull #1 17.8' to 21.7' Run 3.9'Rec.1.6',CL 3.2' Shale, medium to dark gray RQD-0 with interbedded sand and \_\_\_ sandstone layers. Slightlyoto moderately indurated. Sand-22 \_\_\_ stone layers are irregular in shape and thickness Pull #2 21.7' to 24.0' F 100 : 1 \_\_\_ 18.2' to 18.8' badly broken RQD-33 Run2.3', Rec.2.3', CL 0.0' 18.9,19.0 low angle breaks,
thin sand zone.
19.0' to 21.7' core loss
22.0',22.2' breaks 24 \_\_\_\_\_ 22.0', 22.2' to 22.6' badly broken 1 10w angle breaks.
24.0' to 29.3' 4 low angle breaks, badly broken zone top of run. Core 1 22.6',23.0',23.4',23.7',23.9' Pull #3 24.0' to 29.3' 24.0' to 29.3' 4 low engle Run 5.31, Rec. 1.91, CL 3.4 top of run. Core loss may --- have occurred along any of - --these breaks. 28 \_\_\_\_\_Continued on Sheet #2---BLOWS PER FOOT: Soils field classified in Number required to drive accordance with the Unified 1 3/8" ID splitspoon Soil Classification System. with 140 lb. hammer falli \*W.C. % indicates water content % 30"

	(Cont S	Shee Net ATION TOP OF HOLE 56.8		B	Hole No. 24
RE EC		INSTALLATION			Sett12
Cooper Riv	<u>ver Redi</u>	veraion St.	Stephe		C
CESATION DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	RECOV L		
and the second	, .	. d	· · ·	t	, K
		Shale with interbedded sand			
	i	and sandstone, shale is black			Pull #3 continued
		sand and sandstone medium gr			
		Shale contains black organic			<del> </del>
	4	material. Slight to moderate	t y		D 11 W 22 21
30	i	indurated. Erratic penetrati	on <sub>el</sub>		Pull #4 29.3' to 31."
	,	rate indicates core 105565			Run 2,41, Rec. 1.31, CL 1.1
		are occuring in soft sand	RQD-36		
		layers. No reaction HC1.			
		4 breaks 29.3' to 31.7'			
	1	13 breaks 31.7' to 36.7'			
32					
	;				
34	i		7 <b>2</b>	2	Pull #5 31.71 to 36.71
77			RQD-40	-	Run 5.0', Rec. 3.1', CL 1.4
					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			1		
					•
	:		:		
36		8 breaks 36.7' to 41.7' Low			
		angle parrallel bedding.	1		
	· ·				
_		20 51 52 20 01 52221	!		
38		38.5' to 39.0' fossil rich			
		layer soft	. :		
			70		D. 11 46 36 71 A- 1.1 71
	·		ROD-30		Pull #6 36.71 to 41 71 Run 5.01, Rec. 3.51, CL 1.51
			יייסט- אַע		Run 5,01, Rec. 3.51,06. 1.51
1.0					
• (7					
					:
1.2		8 breaks 41.7' to 45.6'	<del></del>	•	
		most parrallel bedding, badly			
	· -	broken zone top of run.			
					_
			46		Pull #7 41.71 to 45.61
			RQD-0		Run 3.91.Rec.1.81,CL 2,11
1.1.		Continued on Sheet #3	·		*****·
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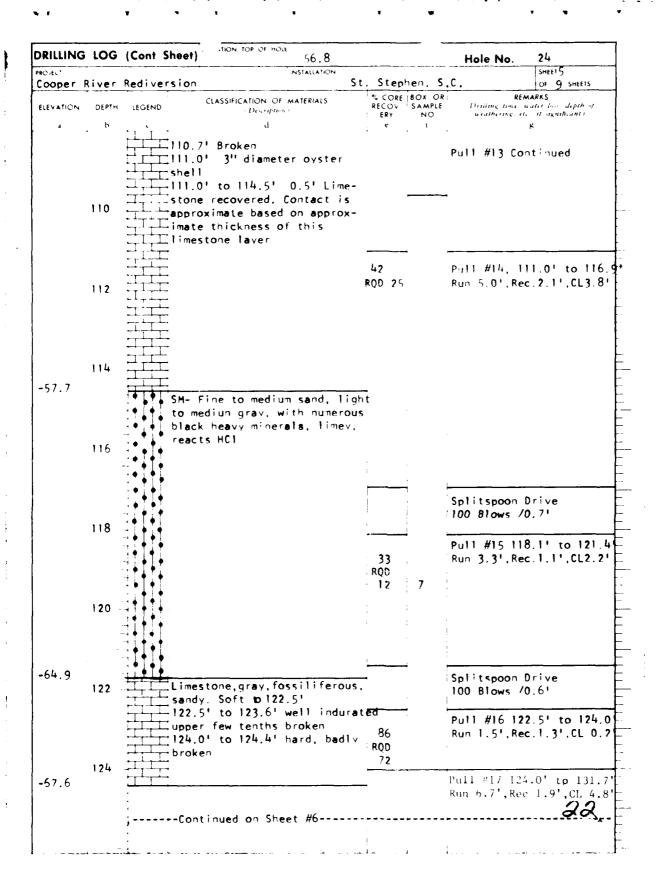
RILLING LOG (Cont Sheet) Et. ATION TOP OF HOLE			Hole No.	24
DIECT INSTALLATION				SHEET 3
Cooper River Rediversion St.		<u>en, S.C</u>	<del></del>	OF 9 SHEETS
EVATION DEPTH LEGEND CLASSIFICATION OF MATERIALS		BOX OR		AARKS water loss depth of
	ERY	NO	u eathering, et	if agnificant:
d d	٠ •	. '	•	. <b>K</b>
			Pull #7 Cons	tinund
<del></del>			ruii #/ Com	riueu
Shale, black, with interbedded				
·light to medium grav quartz				
sand.Most recovered material		•		
is shale. Slightly indurated.		i.		
13 breaks 45.6' to 51.7'	61		Pull #8 45.6	
•	RQD-7		Run 6,11, Red	:.3.7',CL2.4'
·				
48				
40				
(				
·			1	
· · · · · · · · · · · · · · · · · · ·				
			• 1	
50			1	
<u> </u>			NOTE: Scale	change @50.0
4111	12		Pull #9 51.	
SM- Light gray, fine to medium	RQD-0			.0.6',CL4.4'
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐		. 5		
of dark grav CL.		!	Pull #10 56.	7' to 61.7'
60 - 1 1 1 1	0	İ		.0.0',CL5.0'
. 4 1 1	<del></del>	6		
<b>☆ 1 1 1</b>	i		100/0.61	
- ┥ ♦ ┃ ♦ ┃	:	!		
₹ <b>↓↑↓↑</b>		7	50/0.41	
╛╻┥┇┊	I	, ,	70.0.4	
70 ] ∮ [ ∮ ]	į	:		
<b>┦</b> ┇┪┇	!	8	100/0.81	
╡ ┡╽ ┡╽┆		1		
			:50/0 51	
7 • 7 • 7 •	İ	9	50/0.3'	
4 1 1 1	1		1	
80 - 1		10	100/0.7'	
∃ [↑[↑]	<u> </u>	4	ļ	
71∤1∤:	1	Box4		
		1	Pull #11 82.	4' to 91.4'
∃ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	30	İ		.2.71,CL6.31
	RQD-8		1 310 1110	
90 — [ ]	`-	1		
33.7 Sandstone, limey, fossiliferous				
much quartz sand, dark gray to	:	1		
black, mottled, well indurated		1	Scale chang	e at 90.0'
Diack, mottred, well indurated	99	<del> </del>	<del></del>	4' to 101.2'
35.2 92	- 99 -RQD-97			9.61,CL 0.21
Shale, black, few sandy areas,	-~QU~~	,	rung.or, kec.	. 3.9 , CL U.Z.
very few breaks, moderately				20
indurated		· 5	!	OU
		)		
2' horyes on sheest #+				

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RILLING			70.0			Hole No.	24
Cone	r Rive	er Redi	installation version St	. Steph	nen Si	c	
LEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS - Description	* CORE	BOX OR	R (Disting time	MARKS  uniter loss depits of
	ь	ι	d	' ERY	1 00	ueathering	et, if agaiteant). B
	•		Shale, black, few gray sandy areas, very few breaks, moderately indurated	•		Pull #12 Co	·
	94	1 1 1 1	93.9' horizontal break 93.9' to 95.0' taken to SAD Lab.				
	,,		95.0' horizontal break	MC 58.9/			
				,	:		
	96	i					
			00 01 02-202 021 52 1	•			
	98	1	98.0' Horizontal break				
	- - ,						
3.5	100		Glauconitic sandstone, green- black well indurated	<b>-</b>	· ·		
	-		Limestone, fossiliferous,	-			
			glauconitic, gray, well indurated to 103.51		-		
	102 -			56 RQD-37	6 1	Pull #13 10 Run 9,8',Re	1.2' to 111. c.5.5',CL4.3
			103.5' to 107.8' core loss				
	104						
	•						
	106						
			107.8' to 111.0' Well indura	tad			
	108 =			(eu			
		'	Continued on Sheet #5				^1
		•					21

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RILLING				56.8			Hole No.	24
nect Cooper	Pivar	Padi	version	INSTALLATION	Steph	en, \$.(	-	SHEET 6
Cooper	KIVEI	Redi	CLASSIFICATION C			BOX OR		AARKS
EVATION	DEPTH	LEGEND	(Description		RECOV- ERY	SAMPLE	Drilling time.	uater loss, depth of conficient;
a	ь	¢	d		e	f		R
j	,	<b>↓</b> [↓]	SM- Fine to medi	um grained.	•	• • • •	•	
İ	,=	. ↓ ĭ ↓ ĭ	light to medium				Po.11 #17	Continued
:		1111	3	<i>y</i>				Continued
		I † I †						
	- 4	T+I+			28			
	126	1414	1		RQD			
			: 		10			
			:					
			:					
					!		•	
	120	│ ∳ <u></u> ॉ ∳ ॉ				;		
	128	1111				:		
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		I∳∫∳	! 			8		
	_	141+	<u> </u>		:	ŀ		
	130	• • •			i	!		
		┆┆┆			!			
	-	1111			:			
	-	•I•I	  -		!			
		4741				İ		
	•	1111	! !			i	-	···
	132	╏┇╇╏┞	1		1			1.71 to 136.9
	-		į		42			c, 2, 2', CL3.0
	-	1111	:		RQD			icates lime-
	_	]   [	1 1		30	ļ į	stone 133.7	•
76.9	-		! <u>!</u>		!	†		
	134	TI	Limestone, fossil	iferous.sandv	Ī	1		
			blue gray, genera					
			durated with zon		!			
:			ately indurated.		<del> </del>	•		
						· 		
		111			30	:		.9' to 146.7'
	136	1 1	137.8' Moderatel		RQD		Kun 9.8',Re	:.3.0',CL6.8'
	_	1171	zone, 0.11 thick	, two breaks	12			
	-							
			1					
		717	1					
	138 -	<u> </u>	138.3' moderatel	y indurated	i [	į.		
			zone, 0.4' thick		}			
			and bottom		 			
:	7	1., 1,	-		 			
	1	1717						
33.0		1			! <b>!</b>			
	140		• •					
			<b>∔</b> i			9		
	-	1-1-	-Continued on Sh	eet #7				
			Jone Finder on Sin	00. 11.				20
	i		! :		Į			<i>0</i> 5

PRILLING	LOG	(Cont	Sheet)	E. ITON	TOP OF HO		56.8	3		Hole No.	24	
PROJECT	ooner	River	Rediv	ersion		INSTALLATION St	. Ste	phen,	S.C.		SHEET 7	ET <b>S</b>
ELEVATION	T				CATION O	F MATERIALS		% CORE	BOX OR	REA (1) tilling time s	MARKS	
ELEVATION	DEPTH	LEGEN	,		(Descripti	on )		ERY	NO		if significant	
_ <b>.</b>	† - <u></u>	414	SM-	Dark o	ray fo	ssilifero		e <sub>.</sub>	f	† I	<b>K</b>	
		╡╁┿╁╵				rge core				D 11 410 (	1	
				inter						Pull #19 ( 	ontinued	
							1		į	1		
	142								:	:		
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		$\exists I  eg I$	•						1			
			Ť									
	<b></b>	=	•							1		
	144		<b>●</b> 				!		ı	: !		
			<del>▼</del>						i i	1		
		_1 <b>†</b>							i			
			•							:		
	146	# [   ] ·	•						9			
-89.9			<b>†</b>						İ			
-09.9		++++				, gray,sa			1	Pull #20 146	5.7' to 1	55.4
		++++				tion vari		44		Run 8.71, Rec		
	148					o soft,mo ft. Large		RQD				
		+	<b>≒c</b> ore	losse	s prob	ably repr		<b>2</b> 7				
				areas		ted mater	: -1					
						nterv <b>al</b>	101					
			I				i					
	150	+ + + + + + + + + + + + + + + + + + + +	I,				i					
		++++	I.				ļ					
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			<b>⊥,</b> ┯									
	152		<del>-'-</del> T				ļ					
			I				į		İ			
		++	I									
			Ľ									
	154		I 155.	4' to	156.14	well ind	uraté	ed	!			
	1 2**		工 ( )	• •	- ·		- 1		<u> </u>			
		TIT	<del></del>				:			i :		
			T						1			
			Ī						-	Pull #21 15	5.4' to	65.4
-99.3	156	-1				<del></del>				Run 10.0', R		
		•		Loss								
				Contin	ued on	Sheet #8			<b>-</b>	·		
		1					1			i	244	
		1								1		

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	LOG	(Cont !	Sheet) EL TION TOP OF HOLE 56.8			Hole No.	24
ROJECT			INSTALLATION	5+00	hen, S	C	SHEET 8
100	per KIV	TET KE	CLASSIFICATION OF MATERIALS		BOX OR	REN	AARKS
ELEVATION	DEPTH	LEGEND	(Description)	RECOV	SAMPLE		cater loss depth of
a	b	<u>c</u>	d	e e	t	•	K.
	i -	N /	Core Loss	!		ı	
		\ /		i j		Pull #21 Cc	ntinued
		\			!	ruit "21 CC	mernaea
		\/	! !	i		•	
	1.0	X		ı			
	158	/\	:				
		/ \		66			
	1	// \		RQD	ı		
102.6	!	\		25	1		
	1 =		Sandstone, medium gray, fine	1			
	160		grained, clayey, slightly indur-		T.	Lab Sample	
	1		ated to unindurated to 162.11	•		160.51 to 16	51.3'
	! =		161.6' vertical break				
			162.1' to 163.0' well indurate lenses, limestone layer	<b>e</b> a :	10		
			163.0' to 163.3' soft, two		, 10		
	162		horizontal breaks.		•		
			163.3' to 164.5' very clayey	i			
	1 -		slightly indurated. No nat-				
			ural breaks. Almost a shale,	!			
		:	164.5' to 165.4' slightly to				
	.,, =		unindurated	!	İ		
	164			1	1		
	=			1	1	: [	
					!	F \$	
-108.5	1				i ÷		
-	i <u>-</u>		Shale, dark gray to black,		:	1 D. 13 #05	
	166		moderately indurated to 168.2	•		Pull #22	175 / 1
	-		No natural breaks			165.4' to Run 10.0'	1/3.4
	: -			1		Rec 10.0'	
				( 			
	·		168.2' to 169.7' well indurate	ed		<del> </del>	
	168		sandstone zone			!	
			169.7' to 171.9' becoming	25.9%	9	i I	
	: =		increasingly sandy and softer	•	:	!	
			slightly indurated		, 11	I	
	_			į		1	
	170	L	Continued on Sheet #9	! <b>L</b>	- 	L	
	170-						
	7			[	!	İ	
	!					į	
					}		
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				l	:	^	-
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RILLING	LOG	(Cont She	et) - ATION TOP OF HOLE	56.8		Hole No.	<b>2</b> 11+
FOIECT			INSTALLATION				SHEET 9
	ooper F	liver Red	iversion	<u>Şt. St</u>	ephen.	S.C.	OF 9 SHEETS
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS  Description	RECUV	BOX OR	Attrilling time 1	AARKS
a	ь	 	ત	' ERY	NO	i activating an	if agushiants
	•			į	,		
			ale,dark gray to black,	100		i	
			ndy slightly to unindura		,		
			gh angle break 172.9' to	65			
	172	//	3.3'				
	1/2	, ! :-				PnH #32 Co	ntinued
		1					
		·					
		·					
	174		3.91 to 175.41 Broken promoving from core barrel.				
	1/4		moving from core parter.				
						•	
					12		
118.6						<del> </del>	
	1.76	Bo	ttom of Hole 175.41				
	176 -	{				ļ	
		† <del>†</del>				I	
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		. !		1	1		26

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			77.20	1.65	LATION		Hole No.	42 TSHEET	-
DRILLIN	1G LO		South Atlantic	INSTAL		tepner	. s.c.		SHEETS
PROJECT			Joddi Actancie	10 5121			Roller Rock B	1 1	
Coor	er R	iver R	ediversion	11 DAT	UM FOR EL	EVATION	SHOWN (TRM or MSL.	Core	BBL
LOCATION (C	onraine	ites or Sta	tion	Ĺ		MSL			
DRILLING AC		O Leit	<u> </u>	12 MAN	UFACTURE	_	GNATION OF DRILL		
ENICE:NO AC		avanna	h District			Failin	DISTURBED		TURBED
HOLE NO IA	a show		ng title	BUE	AL NO OF	LES TAKE			
			42	14 TOT	AL NUMBE	R CORE E	ioxes 6		
NAME OF DR	ILLER	۲-	llandan		VATION GE		TEO		
DIRECTION	OF HOL	€ G	llander	<del> </del>		STA	52,3	OMPLET	E D
X VERTICA	L [-1	NCLINED	DEG FROM VERT.	16 DA1	E HOLE	2.2	Feb. 1974	24 Fe	b <u>. 107</u>
THICKNESS (	35.045	BOURDEN	82.81 ?	17 ELE	VATION TO	P OF HO	LE 59.7		<b>_</b>
				18. TOT	AL CORE F	RECOVER	Y FOR BORING		90 -
DEPTH DRIL				19. SIG!	NATURE OF				
TOTAL DEPT	TH OF 1	HOLE	121,6'	L	<del></del>		.M. Keeton		
ELEVATION D	EPTH	LEGEND	CLASSIFICATION OF MATERIA (Description)	LS	RECOV-	BOX OR	REMA (Drilling time, wat	er luse, d	lepth <sub>.</sub> ut
	) ь	c	d		• ERY	NO f	weathering, etc.,	-	
							N-0-1		
	=	1					Note: used f		rom
-		ļ				}	Roller Rock	•	r.o.m
:	-						23.01 to 85.		Om
;	7						23.0 (0 05.	,	
<sup>!</sup> 8	lo	1				1	Scale Change	80.0	,
:	=======================================						22.2 2 194		
1	$\exists$						W.T. 7.41		
i		!			Ì	1	Water table	readi	nq
i	$\exists$						24 hrs. afte	r hole	e
i	コ						completed.		
8	2 -	-							
	コ								
-23.1	-		Tue of Rock 82.8" ?		4				
						1			
-	=		£ - de toro						
я	4		Sandstone						
	` コ	• • •				1			
	-								
-25.6	=				+	-	<u> </u>		
İ	$\exists$		Sandstone, Fine			Box	Pull 1		
8	6 🗔		Quartz			1	85.3' to 88.	9'	
	$\exists$		Soft to moderately ha	rd	83		Run- 3.6'		
i	コ		Interbedded with Clay				Rec - 3.0' CL - 0.6'		
ĺ	$\exists$		Shale			1	CL- 0.6'		
	$\exists$		Dark Gray						
ļ_	, 7								
8	8 🗀					[			
j	コ								
1					<b></b>	<b>,</b> [			
}							Pull 2		
i	7				77		88.9' to 96.	01	
	<u>,</u> =		CONTINUED ON CHEST 4	2	}		Run- 7.1'	J	
	゛コ		CONTINUED ON SHEET #	<i>\</i>	<b></b>		Rec - 5.21		
!	$\exists$	1				İ	C1- 1.9'	27	7
İ	$\overline{}$				}	}	• • • • •	~/	
!	7								
					7	1			

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NG	FOG (	Cont S	heet)	59.7			Hole No.	42
				INSTALLATION				SHEET 2
c	ooner	River	Rediversion		St. Si	tephen.	S.C.	OF 3 SHEETS
7	AANA.	111461		ALA TERIAL C		BOX OR		AARKS
ION	DEPTH	LEGEND	CLASSIFICATION OF		RECOV	SAMPLE		cater loss, depth of
A	2 ь	c	, d		' ERY	NO 1	u entretting en	e n ngaman.i
<del>*</del>					• `		•	F
ı	_		Sandstone		•		Pull 2, Co	ontinued
. 7	_		Clay-Shale, Dark			i		
			Interbedded with	Sandstone				
			Lenses, Fine Sar	nd		Box		
.3			Slightly micaced	us, soft		2		
٠,	94 —				<b>-</b>			
i		·	Sandstone					
, :	-		Quartz- Convol	ute Bedding				
.7			Fine, Moderate	-		.		
:	- 1		Slightly Calca		4			
:			- ,			1		
;	96					· ·		
i						1		
							Pull 3	
			Clay-Shale		94	1	96.01 to 1	02.71
i			Soft			97.5	Run- 6.3'	•••
(	=		Dark Gray			_11.5	Rec- 0.41	
	<u> </u>		Concholdal Fract	1150		U-1	C1- 0.4'	
1	98		Conclior day 17 act	.ure		98.3	· · · · ·	
-						2 .		
!						· -		
1,1						L		
1.2	00		Glauconitic Zon		-	Вох		
1	00		•			_3		
- 1			ately hard, Cal	careous	-			
		╌╻┸╌				U-2		
			Limestone "Coqui			101.3		
			Soft to Moderate	ly hard				
						3		
	102		99.9' to 102.2',			1 :		
		╌╌┺╌┻┪	Glauconitic clay			102.5		
		-,4-	as a matrix for	fragmental	111.1	1 5		
		T IL	Limestone.			ે ∪-૩ ે	Pull 4	
	-4	╶┸┰┸╌┎┪			:	103.7		0 102.9'
	=		104.0' to 105.0'	Broken-up		1-23./	Bun-20/2	', Rec- 2.2'
	104		Due to removal f	rom core	•	;	-	
	-		barrel, also a m			3	Pull 5	
		, <b>, , ,</b> ,	because of a hol	e in the	117	- !	102.9' to	
			core barrel. The		<b>'</b>		Run- 2,41,	Rec- 2.81
		47,	was replaced.		:			
						∪-4	Pull 6	
:	106		109' to 110.1' B	roken-up	100		105.3' to	106.9'
	_	- $+$ $            -$	Probably due to			106.4	Run- 1.61	
1			gravel from over				Rec- 1.6',	
1			grinding away co			• .		
	- +		we are not using			4	Pull 7	
1			· ··· • <b>3</b>	<b>,</b> -			106.9' to	110.01
	108		CONTINUED ON SH	FFT #2			Run- 3.1	
		;		LL! #5			Rec- 3.01	
1	-						C1- 0.1'	
į		ı						
	ij	!					•	no <sup>c</sup>
i		+					6	
			!	1	1	1		

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MILENIA	LOG (	Cont 3	heet) IN TOP OF HOLE	9.7		Hole No. 42
IOJECT			INSTALLATION			SHEET 3
	Cooper	River	Rediversion		<u>ephen. S</u>	
LEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	RECO		(Drilling time, water love depth of
4	108	: نام د	<u>.</u>	e	, f	, <u>K.</u>
						Pull 7, Continued
	110		Limestone "Coquina"		:	
	-		Soft to Moderately hard		,	Pull 8 11.0' to 113.1'
	'			100	Box 5	Run- 3.1' Pec- 3.1'
	112			•	,	
	=			125		Pull 9
	114				1	113.1' to 113.5' Run- 0.4', Rec- 0.5
-55.6				1	 	C1- 0.1'
	1	<del></del>	Sand, very soft Fine, Greenish Gray	87		113.5' to 116.6' Run- 3.1'
-56.8	116	-	Quartz, Calcareous			Rec- 2.7' C1- 0.4'
-57.2 - 17.3	<del></del>		Limestone Moderately Hard	125	Box	Pull 11 116.6' to 117.0' Run- 0.4'
<b>-</b> 28, 2	18		Sand very soft	<del>i</del>	6	Rec- 0.5'
			Fine Quartz Limestone			Pull 12 117.0' to 121.6'
	: 20		Moderately hard	40	) <b>i</b>	Run- 4.6' Rec- 1.8'
			Sand very soft Fine Quartz	1		C1- 2.81
-61.9		·	Bottom of hole 121.61			
	- 4	i		!		
					:	
	: - 4 - 4 - 4			:		
					,	10

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Hole No. INSTALLATION DIVISION DRILLING LOG St. Stephen, S.L. OF ? SHEETS South Atlantic 10 SIZE AND TYPE OF BIT ROLLER ROCK bit. 4x5111 DATUM FOR ELEVATION SHOWN (TRM OF MSL) CORE BBL Cooper River Rediversion LOCATION (Coordinates or Station) A 600+09 147 Right C MSL.
12 MANUFACTURER'S DESIGNATION OF DRILL Failing 314 DRILLING AGENCY Savannah District TOTAL NO OF OVER-BURDEN SAMPLES TAKEN HOLE NO (As shown on drawing title 14 TOTAL NUMBER CORE BOXES S NAME OF DRILLER 15 ELEVATION GROUND WATER <u>Gallander</u> STARTED 6 DIRECTION OF HOLE COMPLETED 16 DATE HOLE X VERTICAL INC. NED 26 Feb. 1971: 28 Feb. 1974 17 FLEVATION TOP OF HOLE 46.5 72.41 7 THICKNESS OF OVERBURDEN 18 TOTAL CORE RECOVERY FOR BORING DEPTH DRILLED INTO ROCK 33.2' 19 SIGNATURE OF INSPECTOR TOTAL DEPTH OF HOLE 106.11 J.M. Keeton REMARKS
(Drilling time, water lose, depth of weathering, etc., if significant) CLASSIFICATION OF MATERIALS (Description) ELEVATION DEPTH LEGEND Note: Used fish tail bit from 0.0' to 5.0' used Roller Rock bit from 5.0' to 72.4' Scale Change 70.01 -25.9 12 Top of Rock 72.41 Вох Sandstone, Fine Quartz Pull 1 Angular to Sub-rounded 72.41 to 77.41 90 -27.1 Moderately hard - cemented Run- 5.01 Calcareous, Fossiliferous -27.3Rec- 4.31 Convolute Bedding C10 0.71 Core Loss -28.5 Clay-Shale, very sand, Interbedded with sand, Quartz Soft - Fine sand 76 Slightly Calcareous, Dark Gray-Noncemented Sandstone, Fine Quartz -30.8 Noncemented, soft, Inter--31.1 bedded with Clay-Shale 18 Dark Gray, Convolute Pull 2 Bedding, (76.4' to 76.5' 77.4' to 81.6' cemented) Run- 4.21 62 (77.3' to 77.6' Core Loss) (77.6' to 78.1' Cemented) Rec- 2.5' 01- 1.71 ----- CONTINUED ON SHEET #2--

DRILLING	rog	(Cont	Sheet) . TION TOP OF HOLE	46.5		Hole No.	43
PROJECT Ci	oope	River	Rediversion	St.	Stephen,	s.c.	SHEET 2 FOR 3 SHEETS
ELEVATION		LEGEND	( 1 rescription )	ERIALS % CORI	NO	(Drilling time. v	MARKS (after fire depth of it significant)
33.8	406		Clay-Shale, Interbo		·	Pull 2, Co	ntinued
35.3			- with Sand, soft, Ca - Dark Gray -	alcareous			
35.6	82		Sandstone, Fine Qu		- 2	Pull 3 181.6' to 8	10 21
			Sand, Cemented, Mohard, Convolute Be			Run- 0.7', C4- 2.0'	
:	84		Clay-Shale Soft Dark Gray Conchoidal Fractu	0 re	84.15 U-1 85.25	Pull 4 82.3' to 8 Run- 4.8' Rec- 0.0' Cl- 4.8'	37.1'
:	86				2		
-42 41 · .1	38		Glauconitic zone Calcareous, Modera	ately 99	Box 3 97.7 U-2 68.8	Pull 5 87.1' to 5 Run- 3.3' Rec- 3.2' Cl- 0.1'	00 .4'
	30		Limestone "Coquing Soft to Moderately Soft zones 89.4"	y hard 89.9!	3		
	92		These zones are clized by fragmental stone with Glaucon Clay seams; much soft Breccia, with as a Matrix, giving reworked appearance	l Lime- nitic 104 like a h Clav ng a	91.6 U-3 92.9 3	Pull 6 90.4' to 5 Run- 2.9' Rec- 3.0' Cg- 0.1'	93.3'
	94		Clay in this Matr very soft, ket the stone is soft to lard.	Limes	Box 4	Pull 7 93.3' to 9 Run- 3.4' Rec- 3.3' C - 0.1'	96.7'
	<u> 36</u>		CONTINUED ON SHI	EET #3	-+		37 ·

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KILLIITO	LOG	(Cont Sh	eet) E ION TOP OF HOLE	46.5		Hole No.	43
OHC			INSTALLATION	<del></del> .			SHEET 3
	Coope	r River	Rediversion		phen, S.		JOI 3 SHEETS
LEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	' RECOV	BOX OR.	Deilling ama	MARKS water to scalepin of c
			(Description)	ERY	NO	weathering c	i. it sienificanti
- *,	96		d	• "	. ' .		K
						Pull 7, C	ont i nued
	_	<del>                                     </del>					
			Limestone "Coquina"			Pull 8	
		+++	Soft to Moderately Hard		4	96.7' to	
	98			100		Run- 3.2	
						Rec- 3.2	•
	=	<del>     </del>					
	-						
		++++			49.9		
	100				+ 111 1		
					U 4		
	-	+				Pull 9	
	_			: 100	101.0	99.9' to	103.81
	_					Run- 2 9	•
	_					Rec- 2.9	•
	102	<del>+</del>			1		
	102						
(		TT					
-56.4		<del></del>			. F.		
		1	Sand		5	Pull 10	
		1	Noncemented	100		102.81 t	o 106.1'
	104	1	Fine Quartz Sand			Run- 3.3	
	104		Sub-Angular to Sub-Rounde	ed		Rec- 3.3	1
			very soft	•			
		1	Slightly Glauconitic				
			Calcareous				
		•	Greenish Gray		4		
-59.6	106	<u> </u>	Bottom of hole 106.11		<del></del>		
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DRILLING LOG Jouth Atlantic St. Stephen, S.C. OF & SHEETS 10 SIZE AND TYPE OF BIT 378 IN Splitspoon & 4 Cooper River Rediversion 11 DATUM FOR ELEVATION SHOWN I I BM OF MISLICUTE BBL COCATION Coordinates or Station MSL See Plan 12 MANUFACTURER'S DESIGNAT ON OF DRILL Failing 314 Savannah District TOTAL NO OF OVER COTTURBET CHUSTURBED 4 HOLE NO (As shown on drawing title and file number) S NAME OF DRILLER 14 TOTAL NUMBER CORE BOXES Gallander 15 ELEVATION GROUND WATER TIRECTION OF HOLE STARTED IS DATE HOLE 1 March 1974 6 March X VEHTICAL "INCLINED \_\_\_ 17 ELEVATION TOP OF HOLE 47.4 THILKNESS OF OVERBURDEN 74.21 18 TOTAL CORE RECOVERY FOR BORING DEPTH DRILLED INTO ROCK 38.51 19 SIGNATURE OF INSPECTOR TOTAL DEPTH OF HOLE 112.7' J.M. Keeton CORE BOX OR REMARKS
RECOV- SAMPLE | Drilling time, water loss depth of weathering, etc., if significant. CLASSIFICATION OF MATERIALS (Description) ELEVATION DEPTH | LEGEND OL- Sandy Silt, Fine Sand 46.4 12 Very Soft, Wet, Black 44.9 22 SM- Silty Sand, Fine Quartzi | Sand, Angular to Sub-Angular Very Soft, Wet 41.4 41.1 SM- Silty Sand, Fine to Note: Continuous Coarse, Angular to Sub-70 Samples were taken. 38.4 Rounded, Saturated 62 cry Soft, Poorly Sorted 39 C- Clayey Sand, Fine to Sand, Mottled, 53 Orange and Gray, Moist, Soft 67 SC- Clayey Sand, Fine Quartz 69 Sand, Angular, Moist, Soft 100+ CL-SP- Laminated Sand and Clay Interbedded 100+ Fine Quartz, Angular to Sub-Rounded, Non-cemented Sand 100+ Very Soft Sand Low Plasticity, Gray Clay 100+ Soft 18.0' to 24.0' Thin Bedded 85 24.5' to 24.6' Cemented 100+ Sand 100+ 100+ "ish Tait ---Continued on sheet #2----Note: Soils field classified BLOWS PER FOOT in accordance with the Uni-Number required to drive 1 3/8" ID Splitspoon fied Soil Classification System. W/140 LB, hammer falling 30".

Hole No.	44
ephen, S.C.	SHEET 2 OF 5 SHEETS
FIBOX OR REMAI 15AMPLE Drilling time wall FO weathering etc.	RKS ter low depth of
Blows g	
54	
100+	
100+	
100+	
100+	
100+	
<b>100</b> +	
75	
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<b>93</b>	
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<b>~</b>	
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C

RILLING L	OG	(Cont Sh	ieet)	47.4			Hole	No. 44
Coope	r Ri	ver Red	iversion	TION	St. Ste	phen,	s.c	SHEET 3
ELEVATION C	 DEPTH	LEGEND	CLASSIFICATION OF MATERIA	5	% CORE RECOV ERY	BOX OR	(D+illi	REMARKS  The same water a supplied the same of the same second of the same same second of the same same same same same same same sam
	3	,	d		, · ·	. t .	Blows	κ .
		•	SP- Sand, Fine Angular to Sub-Angula Very Soft Saturated, Very Dense Non-cemented				100+	Scale Change at 70.0'
-24.6			SM- Silty Sand, Fine Calcareous, Low Plast Slightly Glauconitic Shell Fragments Green	lcity	-		100+	Top at rock
-26.8		•••	Top of Rock 74,2'				100+	74.2
			Sandstone Fine Sand Angular to Sub-Rounde Argillaceous	ed	90	,	Pull 74.2' Run- Rec- Cl- 0	to 76.0' 1.8' 1.6'
	4		Glauconitic Slightly Calcareous Shell Fragments Greenish Gray		98	:	Pull 76.0' Run- Rec- Cl- 0	to 80.3' 4.3' 4.2'
	°O					!		•
					100		Run-	to 83.3' 3.0
-35.4	, ,		Clay-Shale Slightly Micaceous, S Dark Gray Conchoidal Fracture Thin Fine Sand Lenses		n't	2	%ec- C1- 0	•
-36.5 -36.8			Lenses Cemented, Calc Sandstone Fine, Moderately Hard Argillaceous, Convolu Bedding Clay-Shale	areous	- 52 -		Run-	4 ' to 87.0' 3.7' 1.9'
	. ,		Continued on sh	eet #4			C1-	
	•							35

**(2)** 

RILLING	LOG	(Cont S	heet) '	DE OF HOLE			Hole No	o. 44	
OJECT	oper	River R	ediversion	INSTALLATION	S t	Stephen,		SHEET 4	
		1		TION OF HATCHIE		E BOX OR		OF 5 SHEET	<u></u>
LEVATION	DEPTH	LEGEND		ATION OF MATERIALS Description:	RECOV	SAMPLE		me water las defuh ig etc it sieniheants	
_ a _	86	i e		d	ERY e	1	4 (4)	K H MCadheant.	
	· ·	1	****		•	•	Pull 4	Continued	
	:	二二	Clay-Shale						
			Slightly M						
		+	Soft		·	- 3			
		7-1-	Dark Gray				Pull 5		
	88 -	<del></del>	Conchoidal	Fracture	62			o 89.4'	
	!	<u> </u>		ted Calcareous		88.4	Run- 2.		
			Sandstone	Lanses			Rec- 1.		
	٠.						CI- 0.9	1	
						= 00.0			
-42.2		===		. <del></del>	-4	89.6			
-42.3	90	+++	Glauconiti				Pull 6		
				Hard, Calcareous		U -2		0 91.4'	
			Greenish G	ray	250	90.9	Run- Z.		
			/		-	,	Rec - 5.		
					i ·	; ;-	<u>Cg- 3.0</u>		
	:	+	limestone	''Coquina''	•	1			
	92	++		derately Hard		·	Pull 7		
	:		Slightly G	lauconitic		: 3	91.4' t	o 95.0'	
	i 				95		Run- 3.		
1	-	+				1	Rec - 3.		
	1	+1+1+				93.8	C1- 0.2		
	94	<del></del>				13.0			
	フマ	+ + + +	94.21 to 9	4.5' Clay Seam	•	U-3			
		+	Glauconiti			94.8			
		T + T			<b></b>		<del></del>		
					i	U-4			
							Pull 8		
	96					96 7	95.01 t		
	- ,				100	96.3	Run- 3.		
					:		Rec- 3.		
	_	+					C1- 0.0	•	
		+			į				
	00								
	98	+++++			1				
		+++			,	14 -			
		1177			i				
	-	TIT!			1	1	Pull 9		
	-	TT			98			o 101.8'	
'	100					1 !	Run- 3.		
		+			t .	1 1	Rec- 3.	41	
						1	C1- 0.1	1	
		T-I-II							
		####T.				1			
		ا مجمله المج				,			
	102	.,	Continue	d on sheet #5	<b>+</b>				- <del>-</del>
		:							
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		•				i	,	<b>2</b> /_	
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		-4							

	roe (	Cont S	heet) E ON TOP OF HO	4/4	<i>k</i> '		Hole No. 44	
OJECT		) i ve = =	ladivare las	INSTALLATION	St, Ste	oben S	S.C.   SHEET 5	
<u> </u>	ooper r	(Iver r	Rediversion  CLASSIFICATION OF	MATERIALS	% CORE	BOX OR	REMARKS	
LEVATION	DEPTH	LEGEND	( Description		RECOV. ERY	SAMPLE	(Drilling time, unter loss, depth of ueathering, etc., if significant)	ſ
a .	1062	<u> </u>	d		- <del>e</del> -	1	<u>k</u> <u>k</u>	
		+++				,	Pull 10	
	;	_	Limestone, "Coquesoft to Moderate		}	5	101.8' to 104.9'	
			Slightly Glauco		108	1	Run- 3.1'	
	-	111	Strightly diadeo			:	Rec- 3.4'	
	1.01	111					Cg- 0.5'	
	104					1 :		
	7					!		
						1 1		_
	: 7				i	1	Pull 11	
-58.5	; =					1 1	104.9' to 108.6'	
30,3	106				. 95		Run- 3.71	
	: =		Sandstone			į.	Rec- 3.5'	
	:		Fine			4	C1- 0.2'	
	: - 1		Cemented Calcareous		,	1		
	1 =		Moderately Hard		i			
	108		Slightly Glauco		1			
	=		Light Green					
							B 11 44	
	: =		107.41 to 111.0	1	i	0	Pull 12 108.6' to 112.7'	
	: -		Non-cemented Very Soft		66		Run- 4.1'	
	10-		Slightly Silty		:		Rec- 2.6'	
	. =		Light Gray				C1- 3.51	
	. 7		<b>3</b> · ,		1			
<b>-</b> 63,6								
	112-	X				X		
( , ,			Bottom of hole	112.71				
<del>-</del> 65.3		<del>-                                    </del>	70(20.11 01 11010					
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Hole No. OF 3 SHEETS St. Stephen, S.C. DRILLING LOG South Atlantic 10. SIZE AND TYPE OF BITRO 1 1 P. ROCK bit Cooper River Rediversion CORE BBL 2. LOCATION (Coordinates or Station) STA 599+50 Offset 1700 LEFT MSL 12 MANUFACTURER'S DESIGNATION OF DRILL 3. DRILLING AGENCY Failing 314 Savannah District DISTURBED UNDISTURBED 13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN 4. HOLE NO. (As shown on drawing title and tile number) 14. TOTAL NUMBER CORE BOXES 5 S. NAME OF DRILLER 15. ELEVATION GROUND WATER Gallander 6. DIRECTION OF HOLE STARTED 16. DATE HOLE 7 March 74 11 March 74 TVERTICAL TINCLINED DEG. FROM VERT 17. ELEVATION TOP OF HOLE THICKNESS OF OVERBURDEN 77.31 ? 18. TOTAL CORE RECOVERY FOR BORING 8. DEPTH DRILLED INTO ROCK 35.41 19. SIGNATURE OF INSPECTOR 9. TOTAL DEPTH OF HOLE 112.7' .M. Keeton % CORE RECOV-ERY REMARKS
(Drilling time, water luse, depth of weathering, etc., if eignificent) CLASSIFICATION OF MATERIALS (Description) ELEVATION DEPTH LEGEND Note: Used Roller Rock bit from 0.0' to 77.3' W.T. 0.0' Water table reading 24 hrs. after hole completed. Scale Change 75.0' Top of Rock 77.31 -25.6 Box Pull 1 Sandstone, Fine Angular 77.3' to 81.3' to Sub-Angular Run- 4.01 Quartz, Calcareous 92 Rec- 3.7' Soft to Moderately hard C1- 0.3' Argillaceous Slightly fossiliferous Dark Gray, Convolute Bedding Some Area are cemented Pull 2 81.3' to 85.9' Run- 4.61 98 Rec- 4.51 C1- 0.1' ----Continued on sheet Box #2

DRILLING	LOG (Conf	Sheet)	ION TOP OF HOL	51.7				Hole No.	45
tOJECT				INSTALLATION		C 4 b	• •	r	SHEET 2
Co	ooper Rive	r Redive	rsion	<u> </u>	St.		en, S.		MARKS
ELEVATION	}	40	CLASSIFICATION OF			RECOV. ERY	BOX OR SAMPLE NO	(Drilling time.	uater loss, depth of tc., if significants
a	3\$	Cla	y-Shale, Sof y, Conchoida	t to Dark 1 Fractur		<u>e</u>		Pull 2, Co	ntinued
-35.1 -35.5		Thi	n Sandstone sent. These cemented, (erately hard	lenses lenses ar Calcareou	·e	27		Pull 3 85.9' to <sup>8</sup> Run- 3.8' Rec- 1.0' C1- 2.8'	9.7'
! !	19	Cem	dstone, Fine ented, Calca erately hard ding, Argill	reous, , Convolu			2		
:		Gra	y-Shale, sof y, Conchoida	1 Fractu	re	137	•	Pull 4 89.7' to Run- 1.1'	90.8'
-40./	91	pre	n Sandstone sent. These e cemented, lerately hard	lenses as Calcareo	us, 🗆	47	92.3	Rec - 1.5' Cg - 0.4' Pull 5 90.8' to	·
- <b>40.</b> ;	93	⊥ \ Mod	uconitic Zon lerately hard careous			0	U-1	Run- 2.3 Rec- 1.1 Pull 6 93.1' to	93.9'
		Lin	nestone"Coqui ft to moderat	ina" taly bard	;   	1250		Run~ 0.8 Rec- 0.0 C1- 0.8	
	95	\$1 \$1	ightly Glauce	onitic		94	3	Pull 7 93.9' to Run- 0.4	
	97						97.2	Pull 8 94.3' to Run- 3.1	
						108	U-2 98.4		', C1- 0.2'
	99					, 100    -  -	4	Run- 3.5 Rec- 3.8 Cg- 0.3	1
	101		-Continued o	n sheet <sup>‡</sup>	¥3		: =		- <del> </del>
						1	:		<b>37</b>
	1					: 1	i i		- •

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RILLING			INSTALLATION			Hole No.	45   SHEET 3
	Coope	r River	Rediversion		ephen,	s.c.	OF 3 SHEETS
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOV ERY	BOX OR SAMPLE NO	(Drilling time t	MARKS (ster loss depth of (f significant)
<u> </u>	10 P	c	d	e	t		ĸ
	103		Limestone, "Coquina" Soft to Moderately hard Slightly Glauconitic	100		Pull 10 100.9' to Run- 3.2 Rec- 3.2'	104.1'
	105			90	5	Pull 11 104.1' to Run- 3.1' Rec- 2.8' C1- 0.3'	107.2'
-55.2	107		Sand Fine, Noncemented, Quartz Very soft Slightly Glauconitic Calcareous Light Green	90		Pull 12 107.2' to Run- 3.3' Rec- 2.9' C1- 0.4'	110.5'
-61.0	111		Bottom of hole 112,7'	96		Pull 13 115' to Run- 2.2' Rec- 2.1' C1- 0.1'	112.7'
	111111111111111111111111111111111111111						
	111111	:		: : : !	:		40

						Hole No	
DRILLIN	NG LOG	South Atlantic	INSTAL			th Carolina	OF 8 SHEETS
PROJECT		South Atlantic				1 3/8" ID Sp	
Cor	oper Rive	er Rediversion	11. DAT	UM FOR E	LEVATION	SHOWN (THM or MS	4x55" Core
STA 598+60	Conedinates as	Station) Left C			MS		
DRILLING AC	_		12 MAN		er's DESIG na 314	SNATION OF DRILL	•
	ah Distri		13. TOT		OVER.	OISTURBED	UNDISTURBED
. HOLE NO (A and file numb	shown on dr	ewing title. 46	BUR	DEN SAMP	LES TAKE	N: 37	
NAME OF DR	ILLER	40	<del></del>		R CORE B		
	Galland	ler	15 ELE	VATION G	ROUND WA		
DIRECTION				E HOLE			COMPLETED 20 March: 74
X VERTICA	L INCLIN	ED DEG FROM VER		VATION T		E +55.0'	0 16101
THICKNESS	OF OVERBUR		<del></del>			Y FOR BORING	87 3
DEPTH DRIL	LED INTO RO				INSPECT		
TOTAL DEP	TH OF HOLE	161.1			J.M.K	(eeton	
LEVATION D	EPTH LEGE	ND CLASSIFICATION OF MATE	RIALS	RECOV-	BOX OR	REM	ARKS Iter lose, depth of
+59.0	b   c	d		ERY	NO	Bitows	ster loss, depth of -, if significant) g
+54.5	111	OL-Sandy Silt		<b>†</b>	1		·
	≓I∳I	♦ Fine sand, very soft				16	
İ		Moist, non-cemented					
:	╡╏┩	Black		-		15	
450 a	<b>= 111</b>	SM-Silty Sand			į į	22	
+50.2 ; +49.7 ;	<b>-</b>	The guartz				32	
177.1	⊒ ↓↑↓	Angular to sub-angul	ar	į		60	
	! • !	Very Soft					
		Non-cemented, moist				42	
İ	$\exists \downarrow \uparrow \downarrow$	13.6' to 4.8' orange		4			
		•		}		27	
+44.5	-	SC-Clayey Sand Fine to coarse sand			1	24	
j	7	Angular to sub-angul	ar			24	
1		Non-cemented	-	[	1	48	Í
!		Stiff, low plastici	ty	Ì	1 [		
İ		Gray			1 1	2 7	
	∄‱						
	∃∷∷∷	SM-Silty Sand			} }	22	
+37.7		Fine to coarse sand Angular to sub-angul	ar			100+	
	∃∷∷∷	Moist, soft	81		}	1001	
		Quartz sand				41	
	7	Non-cemented,		1			
1	7:::::	∭Mottled; orange & ye	11 ow		1	71	
		CD CL All		1	]		
	7	SP-CL-Alternating la				5 <b>3</b>	
	- ‡!!!!!	:::  Laminated,	ΙΥ,			45	
į		Mottled; gray & tan			[	4)	
	- ‡!!!!!	Soft, low plasticity	clay	1		74	
	_=	Sub-angular to sub-r	ounded	[			ľ
	-‡:::::	Sand, Moist.			1	100+	ŀ
1		SP.CH. Alexandria	21/055	}	1 1	1004	
+25.0		SP-CH- Alternating 1			<del>  </del>	100+	
i	3	of fine quartz sand	& clay	1			11.1
	₹ .	\Laminated, Gray.					41
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	100	(Cont 3	heet) E ION TOP OF HO	55.0	)		Hole No		
Coop	er Riv	er Rad	iversion	INSTALLATION	St. Ste	ephen	S.C.	SHEET 2 OF 8 SHEETS	
			CLASSIFICATION OF	F MATERIALS	% CORE	BOX OR		REMARKS	
LEVATION	DEPTH	LEGEND	(Descriptio		RECOV-	SAMPLE	(Drilling 11 u eatherin	me, water loss, depth of ig, etc. if significant)	
<u> </u>	300	1,5	<u>d</u>		e .	ļ	r i ows	. <b>K</b>	
	=		SP-CH- Alternat			1	100+		
			of Fine Quartz			:			
	ļ <u> </u>		Clay, Laminated	i, Gray	1		. :00+		
			•		<u>}</u>	1	79		
	35 —				1	1	77		
	=		<b>)</b>		i	1	,,		
						!	<b>ó</b> 0		
16.0	=						.2		
	40		CD C1			:			
	=	1	SP- Sand   Fine Quartz San	d			:00+		
	=	!	Very Soft				100+		
		1	Saturated				100+		
10.2	} =	. I							
10.3	45 -	///	<del></del>		<del>-</del> :	:	100+		
	[		SP-CH- Alternat		į	!	100+		
			of Fine Sand an Thin bedded	o Clay	ļ i		100+		
	==		Titti bedaed		!	,			
	j _ =					j	100+		
4.3	0				_		44		
			SM- Silty Sand						
		{ <b>†</b> [ <b>†</b> [ }	Fine to Medium	Quartz Sand	1		100+		
		1111	Calcareous Non-cemented				100+		
;	,5	111	Very Soft				100+		
-1.5			Wet						
-1.5			Shell Fragments				100+		
į			Glauconitic, Li	gnt Green	_		100+		
!	, , =		SP- Sand				100+		
i I	50 —		Fine Quartz San						
			Angular to Sub-	nngular nitic	1		100%		
ļ			Non-cemented			ĺ	100+		
			Very Soft				100+		
	45		Wet Light Green			Ì	100+		
			219/11 2700//				100+		
							100+		
	$\exists$						100		
	۳ 'ی 🖳		Continued on	sheet #3	44		_1 <b>Q</b> C t		-
İ	7				· !			42	
								10	
	3				1 1				
i	-				i i				

	roe (	Cont S	heet) E. ION TOP OF HOLE 55.0			Hole No.	46
DIECT			INSTALLATION				SHEET 3
Coop	er Riv	er Red	iversion S	t. Step			OF 8 SHEETS
EVATION		LEGEND	CLASSIFICATION OF MATERIALS (Description)	RECOV.	SAMPLE	(Drilling time.	MARKS  uniter loss, depth of the strength and the
à	. 7 <b>0</b>	c_	d	ERY	NO.	Blows	<u>R</u>
	_		SP- Sand	i :		100+	
	_		Fine Quartz Sand	į	1	.00+	
	-		Angular to Sub-Angular	;		100+	
			Slightly Glauconitic		1	100+	
			Non-cemented, Very Soft			1	
			Wet			. 100+	
	, , –		Light Green		1		
				i		, 76	
-22		4 1 4 1		<del>-</del>	:	85	
	·	1 + 1 +	SM- Siliy Sand, Fine to		:	Note:	Scale Change
		]	Medium Sand, Quartz Sand			(CC+ at 80.	0'
<b>-2</b> 5	30	9 9	Calcareous, Non-cemented		-	Fish Tai	
-25.3	. / _	j	Broken Shell Fragments		+		· <del>- · · · · · · · · · · · · · · · · · ·</del>
• -	_	•	\ Moist /	//	4	7 Pull 1	1
		•		$I_{\perp}$	1	80.2' to	
	-	† ·	Sandstone, Argillaceous	i	į	Run- 0.4	- 1 (1- 0 61
	_		Fine Quartz Sand		1	Kec- 0.0	1. C1- 0.41
	32-	1	Angular to Sub-Angular		i i	D 11 2	
	-		Slightly Glauconitic	91	i	Pull 2 80.6' to	92 C1
	-		Dark Gray	i	1		
			80,3' to 81.8' Cemented		7	Run- 2.3 Rec- 2.1	ا. تا تا ا
		1	Moderately Hard	183		Kec- 2.1	·, cc c.
	-	1	81.8' to 88.0' Non-cemente	d;	İ	Pull 3	
	84-	1	Soft			82.9' to	82 51
				1	ì	Run- 0.6	
	: -				1		', Cg- 0.5'
	٠				i	NEC- 1.1	, 09 0.5
		}		1	,	Pull 4	
	i -			- 60	İ	83.5' to	87.31
	36	1			1	Run- 3.8	
	i –	1		i		Rec- 2.3	
	_	1	Gradational	1	87.0	: C1- 1.5	
	<del>-</del>	1	Clay-Shale, Fine Sand		_ <del></del>		
	-	1	lenses present, Dark Gray		ī U-1	Pull 5	
	3 <b>8</b>	<u>L</u> .	Soft, Conchoidal Fracture	1100	88.0	_ 87.3' to	
-33	) <b>9</b>	<del></del>	Some of the Sand Lenses	100	2	Run- 2.5	
	-		are Cemented.	i.		Rec- 2.5	
	-	<u> </u>	316 100	_i	1	C1- 0.0	
	_		Sandstone, Fine Quartz			Pull 6	Rec- 1.0'
34.4	: =		Sand, Moderately hard	0	:	/ 89.8' to	
34.7	00		Cemented, Calcareous		-;	-	
	90 <u> </u>		Load Casts present at		•	Pull 7	
			hottom.	_ 5?		89.8' to	
			Clay-Shale, soft, Dark Gr	ay ´		Run- 4.0	
			Conchoidal Fracture			Rec- 2.1	•
	-					C1- 1,9'	
	92		! +Continued on sheet #4				
	· -	1	1				//>
		1					44
			1				13
			1 				13
			1 				13

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	roe	(Cont S	heet) E ION TOP OF HOLI	55.0	)		Hole No.	46
Coop	er Riv	er Red	iversion	INSTALLATION	St. St	ephen,	s.c.	SHEET 4
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF		% CORE	BOX OR	(Drilling time.	EMARKS uster loss, depth of
2	920	c	d	'/	ERY	NO.	weathering.	etc., if significant)
	_		Clay-Shale		+ -=	1 1	Pull 7, 0	`oot i nued
	! =		Soft		1		ruii /, c	Ontinued
			Dark Gray			i		
	=		Conchoidal Fract	ure	i	2		
	=		CONCHOIGE		!			
	34	1			<del></del>	• -	Pull 8	
	ı´ =				200		93.8' to	96.1'
	i <u> </u>					94.7	Run- 2.3	1
-40.1		<u> </u>			5.1		Rec- 4.6	1
-40.3	-	1==+	Glauconitic Zone	•		11-2	Cg- 2.3'	
	=	++++	Moderately Hard					
	36		Calcareous, Ceme	ent <b>ed</b>		96.1		
	=		L	9:	5.3		D 11 -	
							Pull 9	00 11
			Limestone, "Coqu				96.11 to	
	=	++++	Soft to Moderate Slightly Glaucor				Run~ 3.3' Rec~ 2.2'	
	48-		95.3' to 96.3' h				CI- 1.1'	
	4.5		reworked apperar		İ	98.3	01- 1.1	
			soft fine Glauce					
			Quartz Sand Vein		İ	U-3		
			200.12 0000 000	· = •		99.3		
	-	1				[	Pull 10	
	100-						99.41 to	
							Run- 2.1	
							Rec- 3.3	1
					157		Cg- 1.2'	
	i -							
	! =							
	102-						Pull 11	
,		1,1,				4	101.5' to	
		4			97	i	Run- 3.51	
							Rec - 3.4'	•
į.					-	ĺ	C1- U.1	
	104					i		
	,04							
į						İ		
i						L		
							Pull 12	
ļ	106						105.01 to	
	7				100		Run- 3.4	
	=						Rec- 3.41	•
					! !		C1- 0.0'	
ļ					· i	5		
i j	108		Continued o	n sheat #1				
	ד מייו		continued d	on sneet #;	,			-4
ļ	=					i		44
l		i						, ,
						;		
ļ		İ			1			
			The state of the same of the s	andre american conservation	i	. <b></b> t.		

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RILLING	LOG	(Cont S				Hole No. 4	
C	ooper	River F	Rediversion	St. Sr	ephen,	s.c.	SHEET 5 OF 8 SHEETS
LEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)		BOX OR SAMPLE NO	REM (Drilling time, u	ARKS user loss, depth of , if significant)
	1048	c	<u>d</u>	<u>e</u> .	+		g
	110		Limestone, "Coquina" Soft to Moderately Hard Slightly Glauconitic	13		Pull 13 108.4' to Run- 3.0' Rec- 0.4',	-
<b>-</b> 55 <b>.</b> 6	112-		Sand Fine to Medium Quartz Sand Angular to Sub-Angular	93		Pull 14 109.0' to Run- 3.0' Rec- 2.8' C1- 0.2'	112.0'
	114		Non-cemented, Very Soft Calcareous			Pull 15 112.0' to Run- 3.4' Rec- 3.9' Cg- 0.5'	115.4'
				114	6		
-62.1	116		Limestone, "Coquina" Moderately Hard 119.9' to 120.1' 120.4' to 120.5'	86		Pull 16 115.4' to Run- 3.6' Rec- 3.1' C1- 0.5'	119.0'
!	120		121.4' to 121.5' Very Soft Zones, Silty, Calcareous, Quartz, Fine Sand			Pull 17 119.0' to Run- 3.9'	122.9'
-66.8	122		Sand, Fine to Medium Quartz Sand, Silty, Numerous shell Fragments, Very Soft Non-cemented	102	7	Rec- 4.0' Cg- 0.1'	
-68.2			Limestone, "Coquina" Alternating zones of very soft NOn-cemented, Sandy Fossiliferous "Mash" and Cemented, Moderately Hard	68		Pull 18 122.91 to	125.41
	1212		Continued on sheet #6			Run- 2.5' Rec- 1.7',	
i	+ - - -			: 			• •

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RILLING	LOG	Cont SI	heet)	55.0			Hole No. 46
NO JECT			11	INSTALLATION			SHEET 6
٠٥٥	per Ki	ver Ked	liversion		t. Ster	BOX OR	REMARKS
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF (Description)		RECOV	SAMPLE	(Drilling time, water loss, depth of weathering, etc., if significant)
	1246	c	d		e	, i	
			· ·			1	Pull 18, Continued
	=		Limestone, "Coqu				
	-=	二二二	Alternating Zone	s of very			
			soft Non-cement	ed and		] [	
			Cemented, Modera		1	!!	
	126		Very Sandy, Fos	siliferous	26		Pull 19
			"Hash"			!	125.4' to 127.3'
							Run- 1.9'
	1					: 1	Rec- 0.5', 1.4'
	1 4	I, I,				·• •	Pull 20
	1,20					!	127.3' to 128.2'
	1 28				33	. į	7 Run- 0.9'
	!	LLI					Rec - 0.3'
		Li III			• •		\
	1	F. I; I;					Pull 21
	; = =				!		128.2' to 129.9'
	130 -				<b></b>	1 -	Run- 1.71
	ب مر <sub>ا</sub>				1		Rec- 1.7'
	-	L				8	C1- 0.0'
	-1				93		
	=						Pull 22
	1 -				ĺ	] [	129.9' to 131.5'
	132 -				75		Run- 1.6'
						i ji	Rec- 1.5', C1- 0.1'
							Pull 23
	- 1				[	į į	131.5' to 132.3'
					1.2		Run- 0.8'
	134				43		Rec- 0.6', C1- 0.2'
	· · · · ·				ĺ	1	
	-						Pull 24
	-						132.3' to 137.8'
	: -				<del></del>	Į i.	¬ Run- 3.0'
					į.		Rec- 1.3', CI- 1.7'
	136				!	į į	• • • • • • • • • • • • • • • • • • • •
	. 7				71		Pull 25
	4				1		135.3' to 137.8'
					í		Run- 3.5' Rec- 1.1'
	-				!		C1- 2.4'
					ļ	İ	-, -, -, -, -, -, -, -, -, -, -, -, -, -
	138				İ	į	Pull 26
		二十二			1,5	! !	137.81 to 141.31
	! :				1	! !	Run- 3.5'
	-						Rec- 1.5'
	-					.	C1- 2.01
	-140		Continued on	sheet #7		·····	
		1			1	; l	11.
					1	;	46
						1	70
					i	į į	
	'				1		
	<u> </u>	1			4	1 1	

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DJECT		Cont S		INSTALLATION	55.0		Hole No.	46 Smit 7
	Cooper	River	Rediversion			tephen,		# 8 SHEETS
LEVATION	DEPTH	LEGEND	CLASSIFICATION C ( Descript			SAMPLE	Dr. aing time	EMARKS  - water — wegan of a  en of authorized.
	140	<u> </u>	dd		<u>.</u>	. ' .		<u>.</u>
			Limestone, "Coo Alternating Zor Soft Non-cement	nes of very			Pull 26,	Continued
	142		Cemented, Moder Very Sandy, For 'Hash'	rately Hard	86	9	Pull 27 141,3' to Run- 1.5'	
					0	<b>→</b> .	<u>Rec-1.3'</u> — Pull 28	C1- 0.21
	_					- '	7142.8' to	143.11
	144				77		Run- 0.3	
	146				55		143.11 to Run- 1.81	
						· 	Pull 30 144.9' to	
	148				1		Run- 2.0' Rec- 1.1'	, C1- O. '
-43 <b>.3</b>			Silty Sand Fossiliferous-F		121		Pull 31 146.9' to Run- 3.2'	
	150		Fine to Medium Sand. Non-cemented	Quartz		_ 10	Rec- 3.9' Cg- 0.7'	
			Very Soft Calcareous Moist				Pull 32 150.1' to Run= 3.3' Rec= 2.5'	
	152				/5		C1- 0.8'	
	154				91		Pull 33 153.4' to Run- 3.7' Rec- 3.4' Cl- 0.3'	157.1'
	-156 -		Continued o	n sheet #8		· <u></u>		
					:			47
					:	1		$\tau_{I}$
	,							•

e

DRILLING	LOG	(Cont S	heet) TION TOP OF	55.0			Hole No.	46
MOJECT C	ooper R	liver Re	ediversion	INSTALLATION	St.	Stephen		SHEET 8
ELEVATION	<b>ДЕРТН</b>	LEGEND	CLASSIFICATION	iption (	% CORE RECOV ERY	SAMPLE NO	REMARKS (Prilling time water loss, depth of weathering etc., if incuthiant)	
-103.3	158		Silty Sand, F Quartz Sand, Plecypods, No Calcareous, V	ine to Medium Fossiliferous-		11	Pull 33, 0	ont i nued
-103.3	160			ous 9.1' to 161.1' Silt Lenses.	10?		Pull 34 157.1' to Pun- 4.0' Rec- 4.1'	161.1'
-106.1		-	Bottom of bol	e. 161.1'		• • •		<u></u>
		1			:	•		
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	-	- - -						48
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	1	<b>!</b> .			,			

		(Cont S	149.	0		Hole No.	47
JECT (	Cooper	River F	Rediversion	St. St	ephen,		SHEET ?
EVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	. CORI	BOK OR	R	EM P depth of
à	80 ь	c	(Description) J	ER1		weathering	et. if significant!
						0.11.0	
	:		Sandstone Fine to Medium, Argillaceo			Pull 1, 0	ontinued
		1	Medium hard				
		• •	Dark Gray				
	.82	í !					
3.4	-		? ,	<del>_</del>			
			Shale	, vůč		Pull 2	
			Sandy Dark Gray			81.6' to	
			Calcareous			Run- 5.0' Rec- 5.0'	
	.84	 E	Sand Interbedded		,	· ec - 5.0	
	•						
	;		Note: Run #2, Core barret blocket, had to heat once				
			out of the barrel Core				
	.04		completely broken-up and	!	,		
	86	<u>-</u> →	mixed. Pull #3 also came out badly broken.				
	;		out badiy broken.		-		
	1					Pull 3	
	*					86.6' to	
	88			36		Run- 3.01 Rec- 1.11	
				İ		C1- 0.0'	
	1			1	:		
					į		
	4						
	90 ;			i		Pull 4	
	1			100		89.6' to	92.61
				ļ <del>a</del> -		Run- 3.0' Rec- 3.3'	
	}				3	Cq- 0.3'	
٥.٤	32					3	
	1		Limestone "Coquina"	-			
	<b>†</b>		Soft to Moderately hard		T	Pull 5	
		+1-1-	Slightly Glauconitic	84		92.61 to	93.7'
	-	+++-			'	Run- 1.1'	
	94 -				i	Rec- 1.3'	
	+				,	Pull 6	
		<u> </u>		100		93.7' to	97.0'
	1: <b>←</b>	باجة بر سينون				Run- 3.3' Rec- 3.3'	
	96 ·					NEC - 3.3	
	<del>70</del>		Continued on sheet #3			****	· · · · · · · · · · · · · · · · · · ·
	:						50
	4				1		<b>V</b> O

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DRILLING	LOG	(Cont S	· · · · · · · · · · · · · · · · · · ·	49.	0'		Hole No.	47
IOJECT	Cooper	River	Rediversion installation		Steph	nen, 5.0		SHEET 3
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS		% CORE	BOX OR	RE/	MARKS Hater loss depth of
	ļ	,	(Description)		ERY	NO	weathering ei	(c, if significant)
	916	e I I	d		<u>e</u> .	<del>                                     </del>	·	<u> </u>
	-				1		Pull 6, 0	Continued
	1 7					1 i		
	-				<b></b>	+ +		
	1 =	<del>╶╻</del> ┸┰┸┪			ı	i i		
		<del></del>	Limestone, "Coquina"		106	;	Pull 7	
	98	+	Soft to Moderately har	d	100		97.0' to	100.21
		<del></del>	Slightly Glauconitic			4	Run- 3.21	
						1	Rec- 3.41	
	_						Cg- 0.2'	
						į į		
				į				
	100			Ì		<u> </u>		
	7			İ			D. 11 0	
		ŢŢŢ		i			Pull 8	103 61
		++++		,	100		100.2' to	103.5
		111					Run- 3.3' Rec- 3.3'	
į	102.	<del></del>		į			vec- 3.3	
:	-	TTT.			j			
İ						į		
			103.5' to 104.0'		[			
!	-		Very Soft, Clayey	į,		<u>,</u>		
:	. 🗆		· , · · · · · · · · · · · · · · · · · ·		ļ			
į	104			i			Pull 9	
1				1	83		103.5 to	106.31
		TT		1	ره		Run- 2.81	
1	-			÷	į	5	Rec- 2.3'	
i		1,1,1			j	1	C1- 0.5'	
1	-				ļ	1		
1	106	77		L		i_		
_	-	中二			}	!		
-58.0					!	1		
1			Sand		!	1	D., 11 40	
!				į		I	Pull 10	
	108		Slightly silty Soft, Calcareous	1	95	1	106.3' to Run- 4.4'	110./
İ			Glauconitic	}	į		Rec- 4.2'	
1			Angular to Sub-Angular	j.	1		C1- 0.2'	
:	i.		Quartz, Greenish Gray	1	i		0.2	
į	7		107.7' to 108.1'		:	:		
	-4		Cemented, hard	Ì		1		
	110			1	!	!		
			Bottom of hole 110.51	1	•	i		
61.5	1			+			<del></del>	
	- 1							
	4				į	(		
	4			-	:	,		
1	7							
1						1		<i>~</i>
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							to any the street was an an arrange for the same	

Hole No. DIVISION INSTALL ATION DRILLING LOG St. Stephen, S.C. South Atlantic 10. SIZE AND TYPE OF BIT 1 3/8" ID SS 4x51" Core Cooper River Rediversion Sta. 597+75, Centerline LOCATION / MSL 12. MANUFACTURER'S DESIGNATION OF DRILL 3. DRILLING AGENCY Failing 314 Savannah District DISTURBED TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN 4. HOLE NO. (As shown on drawing title and tile number) 14. TOTAL NUMBER CORE BOXES S. NAME OF DRILLER 15. ELEVATION GROUND WATER Gallander 6. DIRECTION OF HOLE 8 May 1974 15 May 1974 X VERTICAL [ INCLINED \_ 17. ELEVATION TOP OF HOLE THICKNESS OF OVERBURDEN 78.51 18. TOTAL CORE RECOVERY FOR BORING 8. DEPTH DRILLED INTO ROCK 36.61 19. SIGNATURE OF INSPECTOR 9. TOTAL DEPTH OF HOLE 115.11 Keeton CORE BOX OR SAMPLE REMARKS CLASSIFICATION OF MATERIALS (Description) (Drilling time, water lose, depth of weathering, etc., if significant) ELEVATION DEPTH LEGEND SM- Silty Sand, Fine Angular to Sub-Angular, Quartz Sand Soft, Non-cemented, Moist 51.0 Dull Yellowish Brown Note: Continuous 34 Samples were taken. SC- Clayey Sand Slightly Clayey Fine to 73 Coarse Sand, Quartz Sand Non-cemented, Angular to 54 Sub-Angular, 45.5 **8**0 Light Gray, Medium Plasticity Non-cemented and Medium Stiff 43.5 19 SM- Silty Sand, Fine to Coarse, Quartz Sand Angular to Sub-Angular ^3 Soft, Non-cemented, Wet 29 Light Gray, 9/10 Saturated 15 37.5 SM-SC-CL- Interbedded Silty and Clavey Fine Sand and 65 Silty Sand Clay, Laminated Mottled, Gray, Orange, Red 82 Moist, Soft to Medium Stiff 20 Low to Medium Plasticity l65 Non-cemented 64 SP-CL, Fine Quartz Sand 100+ Interbedded with Lean Clay Laminated to thin Bedded 100+ Moist, Angular to Sub-Angular, boft, Non-cemented 100+ Sand, Medium Plasticity, Soft Clay, Gray. 87 100+ ---Continued on sheet #2--BLOWS PER FOOT Note: Soils field classified in accordance with the Uni-Number required to drive 1 3/8" ID Splitspoon fied Soil Classification w/140 lb. hammer falliago System. 30"

RILLING	LOG	(Cont	Sheet) ELEVATI OP OF HOLE			Hole No. 48	
KOJECT			INSTALLATION	Stank	nen, S.C.		2
	oper	River	Rediversion 51		BOX OR	REMARKS	
LEVATION	DEPTH	LEGEND	(Description)	RECOV	SAMPLE NO	(Drilling time water loss do weathering etc. if signific	
d	30	1 - 5 -	d	<u> </u>	<u> </u>	lows R	
	-	1	SP-CL, Fine to Quartz Sand Interbedded with Lean Clay		10	0+	
			Laminated to thin Bedded	į			
		1//	Moist, Angular to Sub-Angul	air	,10	00+	
			Soft, Non-cemented Sand	. !	10	10∻	
	35		Medium Plasticity, Soft Cla Gray	Y <sub>i</sub>	10	00+	
	-		36.0' to 38.0' Greenish Gra	<b>y</b> :	10		
		127	Fine to Medium Sand	1	,20	)	
15.5		-	SP- Sand	<b>-</b>	10	00+	
	40	1	Fine Angular to Sub-Angular	. [	1		
		1	Quartz Sand	į	110	00+	,
		1	Moist, Soft to Non-cemented	:	10	10+	
		1	· Gray · Some Lean Clay Lenses		110	00+	
	-			į	1		
	45	<del>;</del>	: - 4	i	11	20+	
	-				98	3	
		, 1	i !		1		
		-	:		36		
	_	i	49.5' to 53.5' Saturated	j	20		
,	50	<b>→</b>	; 49.9 to 33.3 Saturated	į	17		
	-	1	•	1	1		
		<del>-</del> 1	i	:	3		
1			•	į	19	, )	
i	55-	1	•	!			
:	-						
	-				23	3	
ı		1		i	1	`	i
1	-	]			1	00+	
	6 <b>0</b>	1				JU+	
;				i	10	00+	
i	-	<b>-</b>			110	<u> </u>	
-	-	]		į	+		
:		]			10	00+	
į	6 <del>5</del>	1		1	110	00+	
i		1		:			
				1	1	70+	
į		1				no+	
	70 -		Continued on sheet #3	-4	4419	00+	
	_		:	1			
		-i	:	!	*		
		4	1 !			<i>5</i> 2	
		†	1		1	4.	

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RILLING	LOG (	Cont S	heet)	OF OF HOL	53.5			Hole No.	48	
OJECT					INSTALLATION				SHEET 3	
<u>C</u>	ooper !	River	Rediversio	<u>n</u>	St	<u>. Srept</u>			OF 5 SHEETS	
LEVATION	DEPTH	LEGEND	CLASSIF	ICATION OF		% CORE RECOV- ERY	BOX OR SAMPLE NO.	(Drilling time, w weathering, etc.	ARKS ater loss, depth of . if significant)	ı
	7 <b>0</b> >	•		<u> </u>		<u>e</u>	f		<u> </u>	
		-	SP- Sand					100+		
			Fine Ang	ular to	Sub-Angular	1		100+		1
			Quartz S			į				
					n-cemented			1004		
	, <sub>5</sub> _	]	Some CL	lenses		!		saa. Nota:	Scale	
	1					į		1.00	e at 75.01	1
	¦ -}							Change	e at /5.0	
-22.5	-	1111			<del></del>	<del>-</del>				
	} =	ItItl	SM- Silt			İ		25		
	╎,, ☐	]+[+			Sub-Angular	1		į		
	77	<b>1</b> 4141	Quartz \$		. No	ا ما				1
		1 4 1 4 1	Moist, S		, Non-cemen	dea		1		
		1,1,1	Greenish		iginerits	ì		100 ·		
-25.0	=	1 1 1					1	Top of Roc	78.51	
- 7.0	=		-							7
	79-		Sandston	-				Pull 1		
	1				ed soft san		1	78.5' to 8	2.9'	1
			Interbed			64		Run- 4.1' Rec- 2.6'		ļ
	i d		non-ceme		the form			CI- 1.5'		
					merous load			0, 1,		
	31		casts.	• • • • • • • • • • • • • • • • • • • •		:				
	7		Dark Gra	у			i	1		
	7		Calcareo				l			ł
			Angular Fine to							1
			Some She				ĺ			1
	83 —		Some Cem				1			-
	=		85.41 to					Pull 2		1
			Calcareo	u\$				82.9' to 8	6.6'	
		,				137	ł	Run- 3.71		
	: =					'		Rec- 5.1'		ļ
	85							Cg- 1.4'		
						1				
	=		Gradatio	nal			2			
-32.5						-				į
	=	<u> </u>			dy, Silt and		1	<u> </u>		_
	87		Sand len				1	Pull 3		
	j ~	===	Soft, No Dark Gra		rea			86.6' to 9	0.61	
	]		88.0' to		emented	50		Run- 4.0'	<del>-</del>	
	-}		Calcareo		-		1	Rec- 2,4'		
	7	===						C1- 1.6'		
	89-									
	עס			<del></del>		7	Contir	ued on sheet	#4	
	=	İ								
:	-	į					}		1	
						Ì			54	ł
	·	1				1	I	i	<b>-</b> / I	

	100	(COIII 3	heet) ELEVATI OF OF HOLE	53.5		Hole No. 48
Co	oper R	iver R	ediversion installat	St. S	tephen,	S.C. SHEETS
EVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIAL (Description)	c % CORE	BOX OR SAMPLE NO	REMARKS (Drilling time, water loss, depth of weathering, etc. if significant)
à	89	c	<u>d</u>	e	f	<u>g</u>
	-		Clay-Shale Conchoidal Fracture Soft Dark Gray		2	Pull 3, Continued
	- 1c		,		0,5	Pull 4
	-			141	91.5 U-1	90.6' to 94.0' Run- 3.4' Rec- 4.8'
					92.6	Cg- 1.41
40.3	-3 -		93.7' to 93.8' Glauco Zone,Calcareous, Mod.		3	
<b>4υ.</b> 3	95		Cemented  Limestone, "Coquina"  Slightly Glauconitic  Soft to Moderately Ha	102		Pull 5 94.0' to 97.4' Run- 3.4'
	97 —		Join to redefacely na			Rec- 3.5' Cg- 0.1'
	99			100		Pull 6 97.4' to 101.2' Run- 3.8' Rec- 3.8'
					4	C1- 0.0'
	101 —			J <del> </del>		
	103			100		Pull 7 101.2 <sup>†</sup> to 104.3 <sup>†</sup> Run- 3. <sup>†</sup> Rec- 3.1 <sup>†</sup> C1- 0.0 <sup>†</sup>
	105 -		Continued on sheet	#5	-	Puti 8
	-   -   -		-continued on sheet	,		

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	LOG	Cont S	heet) ELEVAT OF OF HOL	53.5	<del> </del>		Hole No. 4		
ROJECT	Cooper	River	Rediversion	INSTALLATION St	. Steph	nen, S.		SHEET 5	
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF		RECOV. ERY	BOX OR SAMPLE NO.	REMA (Drilling time, us weathering, etc.	ARKS user loss, depth of	
•	107		Limestone, "Coqu Slightly Glaucor Soft to Moderate	nitic	100	5	Pull 8, Cor 104.3' to ' Run- 3.2' Rec- 3.2' C1- 0.0'	ntinued	
<b>-</b> 56.5	109				89		Pull 9 107.5' to 1 Run- 3.7' Rec- 3.3' C1- 0.4'	11.2'	
	111		Sand, Fine, Slig Angular to Sub-A						
		i : :	Quartz, Moist Slightly Glaucon Soft, Non-cement Calcareous, Gree 110.8' to 111.6'	nted eenish Gray 6' Cemented	100		Pull 10 111.2' to 1	15.11	-
	113 -		Moderately Hard 113.5' Becoming	more Silty		6	Run- 3.9' Rec- 3.9' C1- 0.0'		
-61.6	115		Bottom of hole 1	15.1'					
;   		!							
! ! !	1								
	1								E
					!		5	6	

e

						Hole No.	49	
Delli	ING LOG	South Atlantic	INSTALL		hane		SHEET I	
PROJECT		South Atlantic		. Step		x5½" Core Bb:	lor 3 sheets & 6" Fishtai	
	Cooper Ri	ver Rediversion				SHOWN ( IBM or MSL		
LOCATION	(Coordinates et		1	MSL				
DRILLING	599+50 L Savannah	as shown on plans	12 MANUFACTURER'S DESIGNATION OF DRILL					
			Failing 314  13 TOTAL NO OF OVER DISTURBED UNDISTURBED BURDEN SAMPLES TAKEN O					
i. HOLE NO and file nu	(Mg on dra mber)	wing title 49	BUR	DEN SAMP	LES TAKE	0	0	
NAME OF		<u></u>		AL NUMBE				
	R. Gal	lander	15. ELE	VATION GE	SOUN PURC	T 60served due	to casing se	
DIRECTIO	N OF HOLE CAL _TINCLIN	ED DEG. FROM VERT.	16 DAT	E HOLE			22 May 74	
			17. ELE	VATION TO			- May 73.	
	S OF OVERBURE		18. TOT	AL CORE	RECOVER	FOR BORING	99.1 -	
	RILLED INTO RO		7	ATURE OF		OR		
TOTAL DE	EPTH OF HOLE	108,9'		E. Ha		REMA	BY C	
ELEVATION	DEPTH LEGE	CLASSIFICATION OF MATERI	ALS	CORE RECOV- ERY	BOX OR SAMPLE NO.	(Drilling time, wal weathering, etc.	er losa, depth of	
48.5	0 6	d		•	f	9		
		i						
	! =	į					d fish tail	
		ļ					0.0' to 5.0'	
	: :			-			er Rock bit	
	!					from 5.0'	to /3./	
	-			!			F	
	• =							
							F	
	=						Þ	
	=			İ			, E	
	70					Scale cha	nge at 70.0'	
	· =							
				}	)		E	
				ĺ			E	
	:			<u> </u>			F	
	72				[ ]		F	
	7						F	
	7						F	
:		:					<u> </u>	
-25.2	=	Top of Rock 73.7'						
	74	Sandstone, mica qtz. s	and -	100		Pull l		
	<b>=</b> = 1::::	stone, fine to moderat		100		73.7-74.7	·	
	」 コー	gr. poorly sort argill	laceous		{	¬ Run 1.0'	,- <u> </u> -	
		loosly cemented, soft,	•		1	Rec 1.0'	18	
i	<u> </u>				!	L		
	76	•.		100	i	D., 11 2	F	
	<b>′°</b> ¬			100		Pull 2 74.7'-78.8	,	
				 		Run 4.1'	´ [=	
		::			j l	Rec 4.1'	L	
!	1:::				j l		<u> </u>	
	3.1	4						
i	76	Cont on sh	eet #2					
;	7	Note: St 12 field clas					<b>–</b>	
!	;	i					_	
		in accordance with th				5	<b>7</b> = =	
	= =	fied Soil Classificat System.	ion			9 (	·	
	-	System.					<b> </b> -	

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RILLING	LOG	(Cont Sh	eet   ELEVATIC JP OF HOLE	48.5'			Hole No. 49
Coo	per Ri	ver Redi	version	ST.	Stephens	<del>,                                     </del>	OF 3 SHEETS
LEVATION	<sub>ДЕРТН</sub>	LEGEND	CLASSIFICATION OF (Description d		% CORE RECOV- ERY e	BOX OR SAMPLE NO.	REMARKS (Drilling time. water loss, depth of weathering, etc., if significant)  B
•32.3 • <b>3</b> 2.5	80		Cont. Sandsto loosely cement  Well cemented erately hard a   Sandstone/ Cla gradational co normal, soft.  Silty Clay Sha gray, blocky, with sandy len	zone, mod- rkose. y shale ntact le, soft, calcareous	79	2 81.5 U-J 82.7	Pull 3 78.8'-82.3' Run 3.4' Rec 2.7' C.L. 0.7'  Full 4 82.3'-83.5' Run 1.3'
	84		with sandy len layered with s inch lamanae 84.0'-88.4' Cl homongenous, c fracture.	andy 1/16 ay shale	70	1 84.3 U-2 85.5	Run 1.3 Rec 1.7' C.G. 0.3'  Pull 5 83.5'-88.2' Run 4.7' Rec 3.3'
-39.9	86					2	C.L. 0.7'
-40.1	90		Glauconitic zo erately hard, calcareous	-	150	3	Pull 6 88.2'-91.4' Run 3.2' Rec 4.8' C.G. 1.6'
			Limestone, "Co gray soft to m hard, glauconi & pebbly seams	oderately tic, sandy		-	
	92				97	92.1 U-3 93.2	Pull 7 91.4'=95.0' Run 3.6' Rec 3.5' C.L. 0.1'
	94		Cont on sh	eet #3		J	<b>58</b>

RILLING	G LOG	(Cont S	Hole No. 49					
DIECT								
	Cooper	River	Rediversion	St.	Stephens		OF 3 SHEETS	
EVATION	1	LEGEND		ON OF MATERIALS	RECOV ERN	BOX OR SAMPLE NO	REMARKS Drilling time water lost defits of weathering etc. if significants	
5.45	, <b>9</b> 4 <sup>b</sup> .	1,4	Cont. Limes	d It one	, e			
	1 -		Cont. Limes	cone			Pull #7 Continued	
	: -						Pull 8	
	. 06	+			100		95.0'-98.4' Run 3.4'	
	96				100		Rec 3.4'	
	1				i			
	-				·	·		
	98				1	. , !		
						4	Pull 9	
					;	i	98.4'-101.4'	
	-				I		Run 3.0' Rec 3.1'	
	100				103		C.G. 0.1'	
	=							
								_
	102				!		Pull lo 101.4'-104.9'	
						! !	Run 3.5'	
	-				100		Rec 3.5'	
					1			
55.5	104					5		
	-	]•]•		greenish gray, loosely consol	i-			
	-	] + ] +		ine-med grain cously cemented	4		Pull 11	
	1		glaucor	itic.	100		104.9'-108.9'	
	106			ns some cemento of calcareous	ed	1	Run 3.8' Rec 3.8'	
	-	• •	glaucor	nitic arkose		†		
		•				· :		
	108				!	6		
0 1		• •	Bottom of H	lole 108-9'	1			
0.4		الما تا				<del>  +</del>		_
		! ! !						
		]						
							_	
							59	
							•	

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Hole No. 50

							Hole No		
DRILL	ING LO		South Atlantic	INSTAL	Step	hens 5	.c.	SHEET 1 OF 14 SHEETS	
PROJECT	OPER R	IVER	REDIVERSION	10 SIZE AND TYPE OF BIT4x51,"Core Bb1 & 4x51;" 11 DATUM FOR ELEVATION SHOWN IBM or MED Denison Bb1					
LOCATION			etion)	MS MS	SL				
DRILLING	AGENCY		STA594+70	-			GNATION OF DRILL	•	
		Sa	vannah District		AL NO. OF		DISTURBED	UNDISTURBED	
HOLE NO	(As shown	on draw	ing title					40	
NAME OF	DRILLER			<u> </u>			SOXES 10		
DIRECTION	N OF HOL		ander	15 ELE	VATION GI		0.7	COMPLETED	
			DEG. FROM VERT.	16 DAT	E HOLE	:	:	3 June 74	
THICKNES	S OF OVE	BBUBDE	N 86.2	17 ELE	VATION TO	OP OF HO	LE 60.7		
DEPTH DR				L			Y FOR BORING	85.4 %	
TOTAL DE			123.7	19 51GN	ATURE OF		Hancock		
LEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	ALS	, CORE	BOX OR		ARKS	
00.7	0 6	CEGEND	(Description)		RECOV- ERY	NO.	weathering, etc	ater lose, depth of , if significant q	
VAE		ПΉ	<u> </u>	<del>-</del>	<del> </del> -	1		•	
							Pull l		
:							1.0'-3.4	'	
:	: =						Run 2.4'		
į			†		21		Rec 0.5'		
ţ	1	1111					CL 1.9' LAB CLASSIFICATION		
1			W 01-	141-				CLASS	
	-		ML- Clayey silt with	little			ELEV. 54.7-56.4	SC SC	
			plasticity, tan		]		47.3-48.8	SW-SM	
ŀ	=						36.4-38.1	CH SH	
	<u>ا</u> ر						29.9-31.3	SM W/Clay	
,							31.1-29.1	SM	
ļ	7						27.8-29.1	CH W/Sand	
i			ŀ				19.1-20.2	SM	
	] =						14.1-15.9	SC	
i	i . =	$\{    $					12.2-13.8	SC SM	
	3 —						7.8-9.0	SP~SM	
							3.9-5.5 -1.2-(0)	SM SP	
					<del> </del>	1	<del></del>		
		<b>,</b>	]			}	Puli 2		
		<b>*</b> **	SC- Clayey sand, mica	ceous,	100		3.4'-4.1		
	4	///	light grey with limon		100		Run 0.7'	CL 0.0'	
	=	///	staining, plastic						
ļ	=	/ <b>y</b> /y	1				Pull 3	,	
Ì	-=	7,7,	1				4.1'-6.5 Run 2.4'		
	1 =	///	1		10.5		Run 2.4'		
	5 —	<b>Y Y</b> ~	1		100				
	> _	<b>y y</b> ,	1				LAB CLASSI		
	=	//	}				ELEV.	CLASS	
	=	//				1	-6.9-(-5.8) -10.6-(-9.5)	SP SP-SM	
		<b>7</b> , <b>9</b>	j		MC		- 15.6-(-14.6)	SP-SM	
		<b>*</b> * * * *			18.0	į	- 19.1-(-18,1		
	6	/.YZ	Cont on sheet #2			<del> </del>	- 23.8-(-22.4		
	_ =====================================		Note: Soils field cla		1		-5.0 (-22.1	,	
			in accordance with th	e Uni-	Į.	1	1		
			1		1	1	!	/_ '	
		•	ied Soil Classificat System,					60	

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.neci		(Cont	Sheet) fieva. Total property of . 71	anne de la companya	Hole No <sub>20</sub>
9			Rediversion Statistics Statistics	. Stephens S.C.	SHET 2  1014 SHEETS  REMARKS
.EVATION	DEPTH 6 h	LEGEND	Descrition) d	RECOV I SAMPLE	Deslling time water by depte of weathering etc. It significant &
			SM- Silty sand, tan		Pull 3 Cont.
	7 .				Pull 4 6.5'-8.5' Run 2.4' Rec 2.4'
	8			100	
	9				
					Pull 5 2,9'-11,3' Run 2.4' Rec 0
	10			100	
	11				
	12				Pull 6 11.3'-13.7' Run 2.4' Rec 2.2' CL 0.2'
	13			92 MC	CL Va2
	1 1			18.0%	
	14	Lifi	Cont on sheet #3	<b></b>	***************************************
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ROJECT	LOG (	Hole No. 50						
	oper Rt		SHEET 3					
	1	REMA	RKS					
ELEVATION	1 1	LEGEND		ON OF MATERIALS		SAMPLE	Drilling time, we with the watering etc.	iter lass, depth of
46.7	14b	<del></del> τ-+		d	e	, t		
	- 1	14.1						
	-	<b> </b>					Pull 7	
		• •	SM- Silty	sand, tan	i		13.5'-1	
		<b>†</b>   <b>†</b>			· 75		Run 2.4	
	15	<b> † †</b>				1	Rec 1.8	
		1.1.				1	CL 0.6	
	- 1	<b>∮</b>						
	1	] • ] •				1		
		1111				.: <u>L.</u>		
	1.	<b> </b>				1	Pull 8	
	16	• •					15.7'-1	
	. 📑	• •			. 80		Run 1.5	
	1.	1111			, 50		Rec 1.2 CL 0.3'	-
	] '	T: T!					OF 0°2	
	-1,	<b>∳</b>			ı	1		
	17	<b>                                     </b>			i	1		
43.5	1	• • • • • • • • • • • • • • • • • • • •				<u> </u>		
	1	t ·	m. 011		i			
				andy gravel,	: <b>88</b>		Pull 9	
		7		wet, round to	İ	<i>i</i>	17.2'-19	
	18 -	0 2		to fine sand	i		Run 2.5' Rec 2.2'	
				ixture, loose			CL 0.2	
				raining				
	1			-		2		
	1 1	<b>s</b> R			!			
2. <b>1</b>	19							
41.7	47	7	19.5'-10 7	Clay seam, fat				
	71	<b>†</b> ] <b>†</b>	*/*/ -170/	orda acam'tat				
:	-11	1111	SM- Silty a	and, tan non	! !	i		
	4	111		nous, varved		Ĺ		
	. 1	+   +		16-1/32 clay				
:	20	· [ • [ ]	seams		1		Pull 10	
					j j	i	19.7'-22	.1'
		+   +			100	1	Run 2.4' Rec 2.5'	
		.   •   .			100		кес 2.5	
	- 1	$\downarrow \downarrow \downarrow$				į		
1	21				1			
	- 1	<b>†</b> ] <b>†</b> .			'			
	1 🛉	•						
	11	111.						
	1 🛉	111			1	- 1		
	22	I.L.	Cont on	sheet #4				
			55116 511	Section Representation				
	i				:	į		62
	}	1			:	;		
į	į					:		
	1				į.	:		

	LOG	(Cont She	et)	60.71				Hole No.	
PROIEC CO	oper R	iver Redi	lversion	60,7 <b>4</b> ,147,160	S1. S		nens S.	• •	
ELEVATION		LEGEND	CLASSIF10	TATION OF MATERIALS	RE	COV	BOA OK	Emant Con Care Services Control Contro	
38.71	22h 23		hom	ty sand, tan no ogenous, varved h clay seams	i	00	2	Pull 11 22.1'-24.5' Run 2.4' Rec 2.4'	
	24		24 , 3 1 - 2	4.5', fac clay		40 5 , 0%		-	
	25				ì	Ġ0	. 3	Pull 12 24.5'-26.4' Run 1.9' Rec 1.9'	
3	26								
	27		sub	d, light gray, angular qtz mid d varved with a y	ca silty	00		Pull 13 26.4'-27.9' Run 1.5' Rec 1.5'	
	28				1	<u>0</u> 0		Pull 14 27.9'-29.4' Run 1.5' Rec 1.5'	
	}(! •		Cont	on sheet #5			Mi Miller	TPATTURTS TO LITTER AT ROOM AND A STATE OF THE STATE OF T	
		•						63	·

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ILLING	LOG	(Cont 2	heet) ELEVATIO . TOP OF	60.71			Hole No. 50
EC1				INSTALLATION			SHEET 5
	Cooper	River	Rediversion	St.	Stephens	S.C.	OF14 SHEETS
VATION	DEPTH	LEGEND		detina i	REC⊖∀ ER+	SAMPLE NO	REMARKS Disting time water for depth of activering the disquidiants
.4	. <b>30</b> <sup>b</sup>	9'9	•	1	, <b>t</b> *	. 1	<b>k</b> Pull 15 Continu <b>e</b> d
		/,5,5	, 60 61 1		61	3	i di i 15 continued
		/ / , *	SC- Sand, 1	lar mica qta		,	
		,9,9	sand, v	arved with	- •		
		<b>/ /</b> •	seams		1.00		
	31 .	199	•				
		1979	•				
		199					Pull 16
	3 <b>2</b> .	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	4		• •		31.6 -33.2'
		/ <b>*</b> **	4				Run 1.6'
		·	•		• • • •		Rec 1.6'
		***	•				
	=	9.9					
	<b>3</b> 3	1979	al				
		, ,					Pull 17
		<b>79</b>	•				33.2'-34.7'
		9.9	4				Pun 1.5'
		79.4					Rec 1.5'
	34	***	•		100	4	
		•					
		100					
		79.9	1		broaden		
	<b>3</b> 5	9.9	,			1	Pull 18 34.7'-35.6'
		20	4		100		Run 0.9'
5,2		22	<b>4</b>			i	Rec 0.9'
•		3 3				†	
	2.4	100	SW- Sand, g	ray, wet	100	İ	Pull 19
	36 -	33			100		35.6'-36.4' Run 0.8'
		00			1		Rec 0.8'
						1	Pull 20
		}				Ì	
	37	2 S			100	,	36.4'-37.4' Run 1.0'
	31	3 0			100		Rec 1.0'
		্ ৩					· · ·
		1 2				-	Pull #21 37.4' to 39.4
		· 77 - `` - 54					Run 2.5' Rec 0.5'
	38 =	2 <sup>1</sup> &	Cont on	sheet #h			CL 2.0'
	<b>3</b> 0 =	1	Som on				1.1
							64

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	LOG	(Cont S	heet)	TOP OF HOU	60.71			Hole No.50
HE. T	C	D.4	D		LATION Cran	hors	s C	SHELL B. JOHN 14SHELLS
	Coope	r Kive	r Redivers	10n	St. Step		BOX OF	REMARKS
EVATION	DEPTH	LEGEND	CLASSI	FICATION OF MATER		RECOV	SAMPLE	Deiling time water low defith it
		1	1	(Description)		ERY	NO	neithering etc. if wenthant)
7	38h	4 ^	, •	d	•	ť	i * .	K
		8 0	CU_ C	and areas to	. •			
		1		ind, gray, we	: L			Pull #21 Continued
,		9 9	I			20		
		\$ 9				-0		
		8 0	Í					
	. 39	1 .	İ					
i		3 0	39 4-3	39.9 Clayey	Sand			
		21 8,	) Jy,4-1	plastic				
		1 3		preserv	•		i	Pull 22
		00	İ			71		39.4'-42.3'
	40	0 00				<i>,</i> 1	. :	Run 2.4'
	40	3 4	i i		1			Rec 1.7'
		4 Q	! !				4	CL 0.7'
		10	i I					
		8 3					:	
		\$			I	MC	: ::	
		800	İ			35.0%		
	41		İ		·		1	
		o a					1	
		19 12	}				i	
ĺ		0 0			i		1	
!	!	.5	Į		1			
		0 0	İ		į			
	42	3 8			:			
!	!	1 5			1			
					-			
		5 8 0	]					Pull 23
		15 27			, !			42.3'-44,8'
	43	3 8	! ! !					Run 2.5'
ŧ	ر 🕶	45			Ì			Rec 2.1'
:		3 3	1			84		CL 0.4'
;		45						
!		\$ 20						
		\$ 4	}		İ			
<b>5</b> . 25	44							
		100		and, light gr			5	
		1979	subang	gular mica qt	z sand			
i		7.57.51	varved	with clay s	eams.		! !	
į		7,7	1		!		i !	
}		17.7	!				-	
;	45	1			i I		l i	Pull, 246.9'
		9 4	i		İ		1	Run 2,1'
		1,00	:				;	Rec 2.0'
		+ · · ·	1			95	1	CL 0.1'
ı		<b>*</b> * * * * * * * * * * * * * * * * * *	<b>†</b>			, ,	1	• • •
		, , , , , , , , , , , , , , , , , , ,	<u>.</u>		1		1	
	46	-2-8	Cor	nt on sheet #	7		<del>-</del>	
		1		_			:	1 -
		i	i					65
!								<b>600</b>
		1						÷ †
		į.						

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DRILLING	LOG	(Cont She	eet) ELEVAT TOP OF HOLE 60.71			Hole No. 50
ROJECT			INSTALLATION			SHEET 7
	Cooper	River Re		Stephens	S.C.	UF 145 HETS
LEVATION	DESTE	LEGEND	CLASSIFICATION OF MATERIALS	RECUV.	BOX OR SAMPLE NO	REMARKS Priviling time water love depth of weathering etc. it regulations
4.7	, 46°	· •/ •/ • / •		\$.	:	
		757		MC		Pull #24 Continued
		7,5	SC- Sand, light gray, fir	48.0%		
	1	7,5	subangular mica qtz. sand			
		7,5	varved with clay seams			Pull 25
	47	7,5		100		46.9'-49.1'
	47	7,9		100		Run 2,2' Rec 2,2'
		7,5				Nee 2.2
		7,7,				
		75/5/				
	<b>∔8</b>	7,5			5	
		755		N4.00	,	
		755		мс 88.0%		
		7,5%				
		777				Pull 26
	49	199				49.1'-50.5'
		755				Run 1.4'
		199				Rec 1.2'
		7,9,9		86		CL 0.2'
		/ <b>y</b> / <b>y</b>				
	50	,,,,		1		
		999				:
		99,00				
		1,9,9				Pull 27
_		4,9,9				50.5'-51.7'
9.7	51	(D D		86		Run 1.4'
		1 5	SW- Calcareous sand, ligh	t		Rec 1.2'
		14 4	gray, bioclastic, wet.			CL 0.2'
		40				<del> </del>
	52	4				Pull 28
	54	1		MC		51.7'-53.4'
		্ গ্ৰ		24.0%		Run 1.7' Rec 1.7'
		\$ 5		100		Rec 1./
		\$ 8				
	e 2	1				
	53	\$ 5		-		•
		100			6	
		5 5				Pull 29
		1 8		100		53.4'-55.2'
	54 -	4	Cont on sheet #8			Run 1.8' Rec.1.
		•				
		!				11
						66
		1				

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RILLING	LOG	(Cont S	heet)	OP OF HOLE	7 '		Hole No. 50	
Coc	ner D	iver Pe	diversion	INSTALLATION	Stephens	S . C .	SHEEF 8 OF 14 SHEETS	
	per k	TAST VE		ICATION OF MATERIALS	% CORE	BOX OR	REMARKS	$\dashv$
EVATION	DEPTH	LEGEND	CLASSII	(Description)	RECOV	SAMPLE	(Drilling time water lood optibut) weathering etc. it agnitional	
o. 7	54 <sub>b</sub>	$1 \cdot 1$		_d .	i i	<u> </u>	K	ļ
		3 3			:		Pull #30 Continued	
		1001	SW- Cal	careous sand,	liabe	· ;	Pull #29 Continued	
		3 2		y, bioclastic,				
		12 21	8	,, 01001-0110,		:		
		ļ _				1		-
	55	12 20						
	-	301				• •	n 11 20	
		1 0			88		Pull 30 55.2'-57.7'	
	:	1 5 V					Run 2.5'	
	-	19 2			_		Rec 2.2'	
	56	15 61			MC	ï	C.L. 0.3'	
		1 -2			26.0%			
		6. 9				4		
		14, 17				6		
	-	1 3 .						
	5 <b>7</b>	10 4						
		1						
		2.3						
		, 3						
		70			00	•	Pull 31	
2 7	58 –	120				:	57.7'-58.2'	
		100	SW- Sar	nd, glauconitic	<del></del>	· <u>-</u>	¬ Run 0.5'	
	:	15 5		en gray, coarse			Rec 0.0' CL 0.5'	1 1
	-	(2)		a qtz. loose, s		ł L	\ <u></u>	1
	:	14 91					Pull 32	
	59				120		58.2'-60.2'	ı
		9 6			130	ļ., j.	Run 2.0' Rec 2.6'	
		100				!	C.G. 0.6'	
+		\$			:			
		19 3						
	60	10 0			į			
		<i>t.,</i>			i			
		1-5			MC	, ,	n 11 22	_
	ı	1 3			20.0%	!	Pull 33 60.2'-62.5'	
		15			;		Run 2.3'	
	4.1	· 6				1	Rec 2.3'	
	61	12 2			100			
		4				· ·		
		10 01			1	. :		
		12 2			į			
	62	57 .5				1		
	· -	<del> </del>	Cont	on sheet # 9 -	<u>-</u>			•
		<u> </u>					1_1	
		4			1		<b>V2</b> /	ļ
							~/	- 1
		<u> </u>					7	

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	LOG	(Cont Sh	eet) ELEVATE OF HOLE 60.7'			Hole No. 50
JECT C-		d	INSTALLATION			SHEET 9 OF 14 SHEETS
Co	oper R	IVET KE	diversion St. S  CLASSIFICATION OF MATERIALS	tepher % CORE	BOX OR	REMARKS
VATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS  (Description)	% CORE RECOV- ERY	SAMPLE NO.	(Drilling time, water loss, depth of secuthering, etc., if significant)
. 3.	62 b	c	<u>d</u>	e	f	<u>g</u>
**		4 4			6	Pull #33 Continued
	-	\$ 4	<b></b>			
		4	SW- Sand, glauconitic,		<b> </b>	
	-	\$\sqrt{\sq}\}}\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	green gray, coarse mica qtz. sand, loose	100		Pull 34
	43	8	wet.	-00		62.5'-64.2'
	63 —	3 9	- -			Run 1.8'
	-	اد ۱				Rec 1.8'
		20				
	-	00				
	64 =	0				
	-	10				
		0			1 †	
	- 1	ا ، ، ا				Pull 35
	1 -	2 V		128	! !	64.2'-65.6'
		00		140	i 1	Run 1.4' Rec 1.8'
	65 —	08			1 1	C.G. 0.4'
		5				
		00			_	
	1 =				7 }	D. 11. 24
	=	50			1 1	Pull 36 65.6'-66.5'
	66	6		100		Run 0.9'
		la [				Rec 0.9'
		20			} L	
		00				n 11 0=
	<u>,                                    </u>	00				Pull 37 66.5'-68.0'
	67	4		100		Run 1.5'
	-	50		MC		Rec 1.5'
				23.0%		
	=	υ				
	=	00			1	
	68 —	V V				
	=					Pull 38
		57		82		68.0'-70.2'
		24				Run 2.2'
	=	0 0				Rec 1.8'
	69 -	0				C.L. 0.4'
		\ \d	•		8	
		50		į	-	
		100				
	-	00	_			
	70 —		Cont on sheet #10			
	]					10
						90
						-

RILLING LOG	(COII 3116		60.71			Hole No. 50
	River Re	diversion	St. S	tephens S.	C.	15HET 10
EVATION DEPL	LEGEND		ATION OF MATERIALS	TO CORE	SAMPLE	EMARKS  (1) (2) (m. 10) (m. 10) (m. 10) (m. 10)
70 p			t.	ERY	Pa Ci	we constitue of the superior of
	00				_	
		SW- Sand	glauconitic			Pull 39
	40					70.2'-71.9'
	3			100 MC		Run 1.7' Rec 1.7'
71	30			24.0%		Rec 1,7
	V 4				_	
	5			<del></del>	_	Pull 40
	5 4					71.9'~74,4'
72	34				8	Run 2.5' Rec 1.3'
	\ \sqrt{\sq}\sqrt{\sq}}\sqrt{\sq}}}}}}}}}}\signt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}					C.L. 1.2'
	<b>♦ ♦</b>					
	, \$ 8			52		
73	:00					
	. 5					
	\$ 5 5					
	500					
74	9					
	000					
	74			-		
	50					Pull 41
75	00			52		74.5'+76.9' Run 2.5'
,,	0 5					Rec 1.3'
	۵.					C.L. 1.2'
	0,4			1		
7/	(18) (13) 4)					
15.3 76	2 9			<del></del>		
	<b>y</b> y .	SC- Clayey	sand, green t+clay-sand			
:	<b>7,7,</b>	mixtures.	c-clay-saild	MC 27.0%		
	7,5					
77	***					Pull 42
	,,,			1		76.9'-77.9'
	• • • • • • • • • • • • • • • • • • •			80		Run 1.0' Rec 0.8'
;	9,9,					C.L. 0.2'
78	<u> </u>	-Cont on s	heet #11			
						69
1						91
1						• •

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OJECT			Sheet) ELEVATE SP OF HOLE 60.7 INSTALLATION		<del></del>	Hole No. 50
<u>C</u>	ooper	River	Rediversion St. Ste			OF14 SHEETS
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	RECOV- ERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
1743	785	· ·	d	<u>e</u> .	<u> </u>	<u>8</u>
	_	199	SC- Clayey sand, greer			
		7,5	brown, silt-clay sand	64		Pull 43
	1 -	7999	mixtures.		!	77.9'-80.4'
		9,9		!	8	Run 2.5' Rec 1.6'
	79	9.90	•			C.L. 0.9'
	. / /	9,9		1	MC	0.D. (10)
		**	<del>}</del>		22.0%	
	· :	9.9	1 1		21	
		<b>*</b>	ł			
		9/9	(		!	
	80	<b>,</b> ,	ı			1
	!	<b>*</b>	•			
		* *			. la	
		<b>,</b> , ,			i +	Pull 44
	-	• • • ·	•	00		80.4'-82.9'
	81 —	***				Run 2.5'
	-	,,,,				Rec 0.0' C.L. 0.0'
		,,,,				C.L. 0.0
	_	, ,				
		9.9			l j	
	82	97.91				
		97.91		İ		
		7979		İ	9	
	-	797.	<b>(</b> 	I		
	-	* *		ļ		
	83	79791		00		P 11 / F
	;	• • •	83.2'-85.0' Clayey sand			Pull 45
		•	becoming strongly calcar-			82.9'-83.2'
		7,7,	eous, bioclastic and			Run 0.4' Rec 0.0' CL 0.4'
		*,*,	glauconitic.			Rec 0.0' CL 0.4'
	84	9.9.				Pull 46
		9,9,1		105		83.2'-85.1'
		9.50				Run 1.9'
		29991		MC		Rec 2.0'
		2,2,	· !	23.0%		C.G. 0.1'
	85 — ·	9,96				
	ָּרַ כּס	المحوور	;		+	
		200				Pu11 47
		900		100	İ	85.1'-86.7'
	1	<b>9 9</b>				Run 1.6'
	١	[ <b>***</b> ]			; ;	Rec 1.6'
	86	<del></del> <del>-</del>	Cont on sheet # 12	**************************************		
	-					<b>7</b> 0
i			;		1	••
		i				ļ

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	LOG	(Cont S	iheet) ELEVATION TOP OF HOLE			Hole No. 50
JECT /	Cooper	Dinas	INSTALLATION		e c	OF 14 SHEETS
	cooper	KIVEL		tephens	BOX OR	REMARKS
VATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	RECOV- ERY	SAMPLE	(Drilling time, water loss, depth of weathering, etc., if significant)
5.3	86 ь		Top of Rock 86,1'	e	· t	<u> </u>
5.4			•			Pull 47 Cont.
			Clay shale, calcareous,	1	•	
			dark gray to black, with	!		
	-	==	sandy lenses, blocky	1		
	I		86.7'-87.3' indurated			Pull 48
	87		sandstone seams.	1		86.7'-88.8'
	1			43		Run 2.1'
	1			73	1	
				!	!	Rec 0.9'
	,	1			1	C.L. 1.2'
					1	
	1	===				
	88	<i></i> -				
	-	=		:		
	-	===			9	
		[				
					÷ ;	
	89					Pull 49
	0,7					88.8'-90.4'
	-				!	
		===				Run 1.6'
						Rec 1.6'
				100		
	-	===				
	90	<u> </u>				
				I		
		=				
		===		:		
		===				Pull 50
				1	! ;	90.4-94.4'
	91	===		100	1	Run 4.0'
	71	===		100	1	Rec 4.0'
				•		Kec 4.U
		==-			1	
				1		
	92			1		
					10	
				1	:	
				Í	· [	
	93					
	,,,					
					;	
	•			,		
	94		Cont on sheet #13			
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		. '				7/
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		,				/ /
						$f_{i}^{\prime}$

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KILLING		Cont Sh	elevatik 39 OF HOLE 60.7"			Hole No.50	
	oper R	iver Red	diversion ST. Ste	ohens 9	s c	SHEET 13 OF 14 SHEETS	
LEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% CORE	BOX OR	REMARKS	
			(Description)	RECOV. ERY	SAMPLE NO.	(Drilling time, water loss, depth of weathering, etc., if significant)	
3343.	94b		d	<u>e</u>	<u>f</u>	<u> </u>	
		==	Scale change 94.0'	!	İ	Pull #50 Continued	
	!		Clay shale, calcareous		7 !		
	-		soft, dark gray to black.		1 1	Pull 51	
	96			84	i i	94.4'-96.9'	
	ブゴ			04	10	Run 2.5'	
	1 =				10	Rec 2.1' C.L. 0.4'	
	1 -				1 1	C.L. U.4	
		===		1		Pull 52	
	1 =			114	j l	96.9'-101.4'	
	98					Run 4.3'	
	1 7				1 1	Rec 4.9'	
	-1			1	<del></del>	C.G. 0.6'	
	i -1			1		• • •	
	]			1	]		
ļ	[ 7.			İ			
	100						
			101.0'-101.3' glauconitic		]		
j			zone moderately hard,	) .	}		
40.6	📑		cemented.		11		
	102	<del></del>		1			
	102		I impatone Mossidash	1 1		Pull 53	
	1	T-T-T-	Limestone "Coquina" gray,	94	1	101.4'=106.2'	
	7		soft to moderately hard, vuggy, glauconitic, sandy	74		Run 4.8'	
1			seams and concretions			Rec 4.5' C.L. 0.3'	
1	<u> </u>	111	TOWNS THE CONCLECTORS			U.L. U.J	
ļ	104	1			1		
ĺ		<del></del>					
	#	二二二			j		
ŀ							
!	7	1		-	(		
1	106		1				
1				/			
	+		İ				
1				i	12	Pull 54	
			1	1	f	106.2'-110.4'	
).	±		1	105	1	Run 4.2'	
Į1	108		İ	}	1	Rec 4.4'	
İ	7				Į.	C.G. 0.2'	
			1				
1						i	
}	+				1	j	
1	110						
14	10 ===		Cont on sheet #14				
Ì	7	1	<u>.</u>	;			
	7	i	;	!		72	
ŀ					,	10-	
1	+	i	i		1		
1	-1	:				No. 1934	
	1	<u>L</u>	· · · · · · · · · · · · · · · · · · ·			<b>₩ AS</b>	

DRILLING	LOG	(Cont Shee	P) ELEVAT OP OF HOLE 60.7'			Hole No. 50
PER LES			INSTALLATION			SHEET 14
Cog	per R	<u>iver Redive</u>	ersion St. S			Nr. 14 /mr/5
Fit vall, N		LEGEND	CLASSIFICATION OF MITTERIALS		SAMPLE	REMARYS TO HOS TIME CHOCK TO THE
		20-50-40	Discription	ERY	·:0	mount sing of the start will
.9.3	110		**			
					<u>-</u>	
			Limestone "Coquina"			Pull 55
		<del></del>	1		12	110,4'-115,0'
		1		100		Run 4.6'
						Rec 4,6'
	112					
		-1-1-1-				
		<del></del>				
		工厂				
	114	<b></b>				
					124	
		717			13▲	
						D. 11 54
						Pull 56 115.0'-118 <sub>0</sub> 9'
	1.1.6	<u> </u>				Run 3.9'
	116	1-1-		92		Rec 3.6'
				72		C.L. 0.3'
		1,14				0.2. 0.3
		<u> </u>				
	118	717				
157.5		*   *		7		
		;   <b>†</b>   <b>†</b> :	SM- Sand green gray,	1		
		1 1 1	strongly glauconitic,			
		1717.	calcareous, well graded	100		Pull 57
			coarse-fine.		13B .	118.9'-123.7'
	120					Run 4.8
					1	Rec 4.8'
		1 • [ • ]			1	
		<b>! • ! !</b>				
	122	1111				
	122			1		
		[ • [ • ]			i	
		4 4 1			1	
<b>-6</b> ′ • · ·		<u> </u>	Bottom of Hole 123,7'	<del> </del>	+	
		1		1	1	
		1 .			1	
		1 '		-	1	
		į i			•	
		1		ž k		
		1				
		1				13
		<b>†</b>				
		!				
		;				

u

Hole No. 51

<del></del>			Toi	VISION	INSTALL	ATION				SHEET	1
DRILL	LING	LOG		South Atlantic		. Step	nen. S	.с.			SHEETS
. PROJECT					10. SIZE	AND TYPE	OF BIT	x5 <sup>1</sup> ₂"	Core Bb	1. & 4	x5½"
Cooper	Riv	er l	Redive	ersion	11: DAT	IN FOR EL	EVATION	SHOWN	(TBM or MS)	7 Deni	son Bb1
LOCATION	(Co	ordinet	tee or Sta	ition)	l ms	iL					
Sta. 60	<u> </u>	10.	12.0'	Right of Center Line	12 MANI	JFACTURE	R'S DESI	GNATION	OF DRILL		
_					<u></u>	1E - 75B					
Savanna 4. HOLE NO.				na titlai	13. TOTA	AL NO. OF DEN SAMPL	OVER-	DIST	JRBED		TURBED
and file nu	mb es)		w. <b>w.</b>	51	ļ			<del></del>	12		3
. NAME OF	DRIL	LER				AL NUMBE			9		
Scott					15. ELE	ATION GE	OUND WA	TER	44.0		
DIRECTIO	N OF	HOLE	E		16. DAT	F HOLF		RTED		OMPLET	1975
X VERTI	CAL	IN	ICLINED	DEG. FROM VERT.			- !' >	JAN 1		ZO JAI	19/2
7. THICKNES		OVE		70.1	17 ELE	VATION TO	POFHO	LE	46.0		
					18. TOT	AL CORE P	ECOVER	Y FOR B	ORING RO	CK S	97.4 %
DEPTH DE	2166	ED IN	TO ROCK	<u> </u>	~~	ATURE OF					
TOTAL DE	EPTH	OFH	OLE	92.8'	Ct.	narles	G. Can	ning			
ELEVATION	DE	BTH .	LEGEND	CLASSIFICATION OF MATERIA	NLS	% CORE RECOV- ERY	BOX OR	(D.41)	REMA		4
	1	]	CLUEND	(Description)		ERY	SAMPLE NO.	we	ing time, wa thering, etc.	, if eignif	icant)
<u> </u>	0_	ь	7117	D11		•				·	
		コ	<b>†</b>   <b>†</b>	Black to Tan, Silty sa	and				J≂Jar	Sampl	le l
1.5 0		$\downarrow$	<b>♦</b> Ĭ <b>♦</b> Ĭ	(Fill material)		1		]		lby Sa	
45.0	1.0	<b>-</b>	<del>┧</del> ┩┧Ŷ			ļ		Í		ison S	
		コ	ItIt			ļ				ed Sam	
	}		I♦I♦	Sand, Yellow to Tan,	rine	}		) .			` <u> </u>
	2	$\overline{}$	1111	to very fine grain,	_			<b></b>			
	Ì		<b>†I</b> †I	containing some layers	s of	MC		J-1	Push	2.01 t	o 3.51
	•		<b>♦</b> ₹ <b>♦</b> ₹	clay. (SM)		21.0%		S-1			] ] ]
		$\Box$	1414	_		22.0%	1	J-2			
	İ	$\exists$	I † I †	NOTE:Lithology contact							
		$\exists$	7171	the överburden a	re	,					1
	4		†I †I	approximated.				$\mathbf{X}$			- 1
		-	<b>♦T</b> ♦T								, i
	}	⊣	1414			)	Í	J-3		11 .	to 5.61
			I • I •					S-2	Push	4.5'	10 5.0
			TITL			ļ		J-4			<b>I</b>
40.4	5.6	5 ⇉	الفاو	<u> </u>		MC					
	6	$\exists$		Sand, Yellow to Tan,		24.0%		J-5	Duch	c 41 (	to 7.21
		-		fine to very fine with	ו	- 10,0		<b>\$</b> -3	rusii	J.0 (	10 /.2
	1	$\exists$	14 1%	gravel. (GM)				J-6			
			1747					¥-0			ĺ
		$\neg$				N.C.	<del></del>	<del> </del>			1
		$\dashv$				MC 26.0%		D-4	D 114	μ. ¬ ·	, ,
	8		719					J-7		4. 7.2	
	8	$\overline{\Box}$	MA			61.5		J-/		Run 1	
37.2	1	´ ⊒ <b>;</b>	<i>برار</i> ب	, — — — — — ·		<del></del>				.8' CI	
			/://	Sand, greenish gray, f	ine	0.0		X	LOST CL	.EANIN	a MULE.
		7	////	to very fine , interbe			вох	$\leftarrow$			
		⋾	/-/-//	with consolidated clay		ļ		]		-1-	
	10	-	/////	calcareous, Contains		78.2	1	D-5	Pull		I
		$\rightarrow$	////	leached fossil remains		MC MC		ן כ-ט		to 11.	
	ļ		/-/-;					ا م			ec 1.8'
		-₽	///			43.0%		J-8	CLC	).5'	f
	1	7	///			L			I I		
	}		/././.			• •					NG HOLE
	12	3	////			0.0			WITH	MUD.	- 1
	' -		******	CONTINUED ON PAGE 2		·		<del>۲</del> – ۲	NOTE: L	ab ci	assifi-
		7		COTTINUED ON PAGE 2		1			cation		
	1	$\exists$		tost, soils field class	ified	ĺ		i i	Cacion	3,366	page .
	1	-		in accordance with the	Unifia	a				ا سد	1
		$\exists$		Soil Classification Sys	tem.	Γ				75	T
		コ		January Control of the				( i	•	,	١ ١
	I	1		I		1	1	i I			ſ

	LOG	(Cont !	Sheet) ELEVATION TOP OF HOLE 46.0			Hol	le No. 51
ren Doopen	- Riv	er Redi	version St. Step	hen S	C.		SHELT 2
		-	CLASSIFICATION OF MATERIALS	% CORE	BOX OF		REMARKS
VATION	DEPTH	LEGEND	(Description)	RECOV	SAMPLE		illing time, water for act the foreathering, etc., it significant
	12ь	to Tital	4	1. e	↓ <u>.</u> t	1	, K
		4///	Sand, greenish gray, fine			$\pm \setminus \angle$	
		1///	to very fine, interbedded	0.0		$\mathbf{X}$	]
		1///	with consolidated clay,		BOX	!/\	
		1///	calcareous, Contains some		1	<u> </u>	1
	14	1///	leached fossil remains.	MC			
		1///		54.0%		J-9	Pull #6
		1///	•	80.	ı	Denn.	13.5' to 15.5' Run 2.0' Rec 2.0'
,		1/.//	(	•		. 0	Nail 2.0   Nec 2.0
! !		////	). h				
į	16	1///				J-10	1
1		1///				Denn.	contaminated.
:	-	1///		20.0		7	Pull #7 15.5' to 18.6'
		1././		32.2			Run 3.1' Rec 1.0'
		(///)	•				CL 2.1'
	18	9//			:	J-11	
	10	1///	:				
		1././	•	-		<del>-1-12</del>	NOTE 1 -0 (:
		1///		0.0	BOX		NOTE:Lost 18.6' t 19.6' Setting
		////	•	0.0	2		Casing.
	20	1///	i e				1 = 3 · · · · g ·
	- 0	1///			l	Denn.	Pull #8
		1///		: 00	,	8	19.6' to 22.1'
		////		88		ļ	Run 2,5' Rec 2.0'
		1/./.			l !	j-13	CL 0.5'
	22	6/9/9			1		IN SHOE
		1//	•		į		
		1.//				J-14	Pull #9
		1/./.		. 00		·	22.1' to 24.6'
		1///		; 88		Denn.	Run 2.5' Rec 2.2' CL 0.3'
	24	1///		1		9	OL 0.3
		1//		1 .			
		4//		·			IN SHOE
		1///	Sand, greenish gray, fine			J-15	[
		1/.//	to very fine grain,			Donn	Pull #10 24.6' to 27.1'
	26.	///	interbedded with consolidate clay, calcareous, fissil	3000		Denn.	Run 2.5' Rec 2.0'
	26	1///	bedded, contains small			. 1	CL 0.5'
		1///	amounts of organic material	1	BOX		
		///.	"peatlignite"		3		IN SHOE
		////				Dans	Pull #11
	28	////		80		Denn.	27.1' to 29.6' Continued
	232	12126	Continued on Sheet #3				<u> </u>
		•					
		<i>i</i> +				1	-1
		1				ļ	15
		:					<i>!</i>

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KILLING	LOG	(Cont S	heet)	ELEVATION TOP OF HOLE 46.0				Ho	le No.51
DIECT		ver Red		INSTALLATION		<b>n</b>	c c		SHEET 3
Cool	er Ki	ver ked	ivers		t. Stephe		S.L.	•	REMARKS
LEVATION	DEPTH	LEGEND		CLASSIFICATION OF MATERIALS (Description)	RECO	ov 📗	SAMPLE	$D_{i}$	illing time, water loss, depth of
,	286			d	ER:	¥ !	NO f	u	eathering etc. if significant)
		111	-		† -	•		11	
	-	1////	Sand	, greenish gray, fi	ne '		BOX	Denn.	
	I	<b>9/9/9</b>		ery fine grain.			3	J-16	
	-	1///		rbedded with consol	idate¢	-		$ \nabla$	LOST OUT OF SHOE
		1///	clay	, calcareous, fissi	1				0 11 //10
	30	////		ed, contains small				r	Pull #12 29.6' to 32.1'
		1/.//		nts of organic mate	rial,			Denn. 12	Run 2.5' Rec 1.8'
		1././	''p <b>e</b> a	itlignite"				12	CL 0.7'
		1///			72				02 0.7
		1///			7 2			<del></del>	IN SHOE
	-	////						$\times$	LOST OUT OF SHOE
	32	1//4						$\angle \Delta$	<del></del>
		1//							Pull #13
		1/1/							32.11 to 34.61
		1///						00.4	Run 2.5 Rec 1.4
	_	1///			56			BOX	CL 1.1'
	34	1/1/			!	,			
	I	1/8%			!				
	!	////			<del> </del> -		ВОХ	<u> </u>	<del> </del>
		1///					4		Pull #14
		1///			-	i	,		34.6' to 37.1'
	<b> </b>	1///			88	ļ		BOX	Run 2.5' Rec 2.2'
	36	1./.			- 0				CL 0.3'
		1/1/0			;			-	ļ
	-	1///				1		i	
		1///			<del></del>			·	5 11 245
		1///				1			Pull #15
	38	1//							37.11 to 39.61
	-	1///			30	- 1			Run 2.5! Rec 0.8! CL 1.7!
		1//			32	i		BOX	Started using 4x5
		1///			!	1		1	Bottom Discharge
	_		San	dstone, calcareous		:		ı	Barrel @39.61
•	1.0	1././.)	33,1						
	40 _	1././4	San	d. gr <mark>eenis</mark> h gray <b>,</b> fi	ne				Pull #16
		1///		very fine grain					39.6' to 42.6'
	-	1.1.		erbedded with	: .				Run 3.01 Rec 1.91
		1///		solidated clay, calc		. 3		i	Cl 1.1'
	_	1.///		, fissil bedded, cor		1		<del></del>	
	42	1.7.7.		ll amounts of organi				WAX	
		////	mat	erial.Upeat-lignite	į	' 1	BOX	WAX 13_	
		1///			·	<del></del> `	5		Pull #17
		1///			1 .		-		42.6' to 45.6'
		1///			146	. 6		BOX	Run 3.0' Rec 1.4'
	44	1///							ct 1.61
	44	-17.4	r.	ontinued on Sheet #4		-			
		:	U	miciniumu (m. 5066) 774					
		;							
		i							76
		1							

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KILLING	LOG	(Cont 3	heet) ELEVATION TOP OF HOLE +46.0			Hole No. 51
O/ECT			INSTALLATION			SHET 4
Cooper	Rive	r Rediv	ersion St. Ste	phen.	S.C.	OF 6 SHEETS
ELEVATION	DEPTH	1 1	CLASSIFICATION OF MATERIALS Description	% CORE	BOX OR SAMPLE NO	
d	44ь.	17.70	d	• °		·
			Sand, Greenish gray, fine to very fine grain interbedded with consolidated clay,			Pull #17 Continued
	. 46		calcareous, fissil bedded, contains small amounts of	0.0	-	Last washing hole
			organic material, "Peat- lignite."	100	- Box	Started using Denni- son @ 46.0'
1:			Light Gray, Consolidated		5 -	Pull #18, 46.0' to
	∔8		Sand SP fine grain greenish	66.6		J-17   47.2', Run 1.2'   Rec 1.2'   Sample   Contaminated   Pull #19, 47.2' to
			gray, contains leached fossi remains interbedded w/clay, Lt. Gray, Consolidated.	1		49.6' Run 2.4' Rec 1.6' CL 0.8'
•					<del>-</del> -	Sample in core box $4x5^{1}$ at $49.6'$
•	50	1.7.7.	Limestone, Argillaceous	•		
			Sand, fine grain, greenish gray, contains leached fossi remains interbedded w/clay, Light gray, consolidated	17.4 1		Pull #20 49.6' to 51.9' Run 2.3' Rec 0.4' CL 1.9'
	52		"SM-CL"	<del></del>	•	Pull #21 51.9' to 54.7' Run 2.8' Rec 0.7'
	54			25		CL 2.1'
					· <del>•</del>	Denison at 54.7'
	56 .			21.4	Box	Pull #22 54.7' to 58.1' Run 3.4' Rec 0.6' CL 2.8'
				. 21.4	6	
	58			0.0	-	4x5 <sup>4</sup> 5 at 58.1' Pull #23, 58.1' to
			•	.,.u	-	58.6' Run 0.5' [Rec 0.0' ct 0.5']
	60	<u>///,</u>	Continued on Sheet #5			Pull #10 continued
		•				
						77

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RILLING	LOG	(Cont S	heet) ELEV-TION TOP OF HOLE	+46.0			Hol	l <b>e No</b> . 51		
OJECT				INSTALLATION					SHEET 5	
Coop	oer Ri	ver Red	iversion	St. St	ephen	S.C.			OF 6 SHEETS	_
LEVATION		LEGEND	CLASSIFICATION OF (Description		% CORE RECOV- ERY	BOX OR SAMPLE NO.	(Dri	REMA Illing time, u.a eathering, etc.,	RKS iter loss, depth of if significant)	
	60b		Sand, fine grain, gray, contains le remains interbedd light gray, Con	ached fossil	30	f		58.6' t Run 3.0	'4 -CL 2.1' to 61.6' )' Rec 0.9' n at 61.6'	
	62		Sand, greenish gr interbedded clay, ated, containing organic material	consolid	40				to 64.1' 5' Rec 1.0'	
1	64 - <del>-</del>	///!	Sand fine grain t grain, contains a lamina, 0.2" thic (SP-SM) (Water Be	few clay k.	72		J-18 J-19 Denn J-20 J-21	64.1' t	6 - CL 0.5 o 65.6' ' Rec 1.0'	-
	- 66 -		Hole started to f						o 70.1'	
	o8 ·				62.2	Вох <b>6</b>				
- 2- • 1	70		TOP OF ROCK 70				J-22		rrel at 70	
	72		greenish gray, ha material varies to sand to some laye well cemented sat Blended Spl. Classas (SM)	ard to soft, to a clayey ers of hard adstone	56 MC <b>24.0</b> %		3" Tube 15 J-23 J-24	Run 2.5 CL 1.1 Pull #2 72.6' t	8 o 72.6' ' Rec 1.4'	
	7 <b>4</b>		Sandstone, <b>Cál</b> ca light gray, fine hard well cemente	grain	100		·	4x5 <sup>1</sup> 2 at Pull #1 73.6'	73.6	
	76 –		<u>Sandstone</u> , <u>Conti</u> Continued on She	nuedet #6						_
		! !							78	

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RILLING	LOG	(Cont St	1001/1 +46.0			Hole No. 51
O.ECT			INSTALLATION			SHEET 6
Coop	er Riv	ver Redi	lversion St. S	tepher	1, S.C.	for fir sources
TEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (120cmpton)	% CORE RECOV ERY	BOX OR	REMARKS (Drilling time water l. driple of weathering etc. it stemboard)
J	76 <sup>6</sup>		Sandstone, Argillaceous, greenish gray, hard to soft, varies to a clayey sand, highly consolidated	· ·	: ' :	R Pull #30 Continued
-32.4			Clay-Shale, dark gray, dense, Medium hard to soft,		Box	Pul1 #31
	80		fissile bedded, Slakes readily upon exposure to air.  LAB CLASSIFICATION		7	78.6' to 83.6' Run 5.0' Rec 5.0'
	. 82		ELEV. CLASSIFI. 43.5-44.0 SM 42.5-43.5 SM 38.8-40.4 SP-SM 38.1-38.8 SP-SM 35.1-36.8 CH (Sandy) 32.0-33.5 CH (Sandy) 32.5-32.0 SC	100		
	84		24.6-24.4 SM 27.2-27.0 CH (Sandy)	84	ja	Pull #32 83.6' to 86.8' Run 3.2' Rec 2.7' CL 0.5'
	86				Box _ 8	VI. V. V
	88			117		Pull #33 86.8' to 89.8' Run 3.0' Rec 3.5' CG 0.5'
, ,	89			-		
			Glauconitic Zone, Limestone, Sandy, Hard, Shell Limestone, "Coquina",	<del></del>		Pull 034 89.81 (5.97.81
	9.4		soft to moderately hard.	70	hon. g	Run 3.01 Rec 7.11 31. 0.31
or, s	47.5		BOTTOM OF HOLE 92.8' Pluggedholo w/9 sacks	<u> </u>	- <del></del>	79

Hole No. 52 INSTALLATION DRILLING LOG South Atlantic St. Stephens, SC SHEETS 10 SIZE AND TYPE OF BIT 4x52 Core BBrI & 4x52" 11. DATUM FOR ELEVATION SHOWN (TBM or MSLDENISON Bbl Cooper River Rediversion

LOCATION (Coordinate in Station Powerhouse Site
75.0' Left of § Stat. 597 + 90 MANUFACTURER'S DESIGNATION OF DRILL 3 DRILLING AGENCY CME 75 Savannah District
HOLE NO. (As shown on drawing title and file number) DISTURBED UNDISTURBED 13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN 14. TOTAL NUMBER CORE BOXES S NAME OF DRILLER T. W. Scott 15 ELEVATION GROUND WATER 50.3 MSL STARTED I COMPLETED 16 DATE HOLE T VEHTICAL 1-28-75 1-31-75 DEG. FROM VERT. 17. ELEVATION TOP OF HOLE 52.8' THE KNESS OF OVERBURDEN 78.5 18. TOTAL CORE RECOVERY FOR BORING DEPTH OR LLEG INTO BOCK 44.1 19. SIGNATURE OF INSPECTOR 122.7 TOTAL DEPTH OF HOLE William E. Hancock, Geologist REMARKS
(Drilling time, water lose, depth of weathering, etc., if significant) % CORE RECOV-ERY BOX OR SAMPLE NO. f CLASSIFICATION OF MATERIALS (Description) VATION, DEPTH !LEGEND! SM, Silty Sand, black, grey 7.01 & tan, depth variegated. Date 1/28/75 J-1 Initially black w/organic Depth to water clay in small %. during drilling W.T.\_ Water table reading -grey fine to coarse grain 24 hrs. after J-2 w/small % gravel. hole completed. J = Jar Sample J**-3** S = ShelbyJ-4 D = Denison Sample W = Waxed Sample J**-**5 - Aquifer - - Fine grain poorly sorted, tan. **J-**6 J**-7** 10-CONTINUED ON SHEET 2 NOTE: Soils field classified in accordance with the Unified Eoil Classification System.

DRILLING	rog	(Cont	Sheet),	LEVATION TOP OF HOLE 52.81			Hole No.	52	
PROJECT.				INSTAILATION				sнеет 2	
Cooper	River	Rediv	ersion	St. Steph				OF 8 SHEETS	
ELEVATION		LEGENE	)	CLASSIFICATION OF MATERIALS	RECOV ERY		(Drilling time	MARKS  use his depth of  it if vignificant)	
a .	<b>.</b>			Silty sand (continued Page 1)	. •				· · · · · · · · · · · · · · · · · · ·
38.8	14		l transla	company to blue company	<b>-</b>				
	1ô		very silt micac glauc grain lense	green to blue green, fine & fine grain sand mixture, slightly plast eous, small % of conite and phosphite as occasional seam & of stiff fat clay - 1 molds.		J-9			
	18						18.0 - 23.		
						J-10	of silty s	and mixed in	
	20					J-11			
	22								
			- tam	n, fine grain silty sand		_J-12			
	24					J-13	from tan t	gradational oblue green, of silty	,
						<u>1-14</u>	Janu mixeo		
	26								Ì
25,8	27.0		<b>7</b>	namic organ blue to					ļ
	28		black	park green blue to		J-15			_
		•	CONT	INVED ON SHEET 3					
						1		(I	
		•						٥/	

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	LOG	(Cont S	heet) ELEVATION TOP OF HOLE 52.81			Hole No. 52
юлест Соој	per Riv	ver Red	liversion St. Step	hens. S	C	SHEET 3
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)		BOX OR.	REMARKS (Drilling time, water loss, depth of weathering, etc. if significant)
	30		Dark blue green to black sandy fat clay, laminated wi silty sand lenses and silty organic layers, mica bearing in parts.	th	f // // // // // // // // // // // // //	All jar samples collecte from 4" auger
	34				J-18	
	<b>3</b> 6				3-10	
) • ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	38 -		Blue grey lean silty sandy clay, mica bearing, inter- layed SP-CH	<del> </del>		
	40		Dark green very fine to fine grain poorly sorted silty sand glauconitic; occasional 1/8" seams of silt and claySM-		J <b>-1</b> 9	
:	42		·		J <b>-2</b> 0	
:	44		CONTINUED ON SHEET 4	· ·		<u></u>
;		i				82

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Cooper River Rediversion  ELEVATION DEPTH LEGEND  SM = grain  46  1.8  50  SP - poorly  52  54  SM - grain  SM - grain  SM - grain  sand seams approx	vation top of hole 52.81		Hole No. 52
ELEVATION DEPTH LEGEND  A6  SM - grain  SC - claye  50  SM - grain  SP - poorly  52  SM - grain  SP - poorly  53  54  SM - grain  SA  SP - poorly  SM - grain  sand seams approx	INSTALLATION		SHEET 4
SM - grain  4.8  4.8  50  1.8  52  SC - claye  SP - poorly  grain sand seams approx  53	St. Steph	ens, SC	[cii 8 Smit]
4.8 48  50  1.8  52  SC - claye  SP - poorly  grain sand seams approx	LASSIFICATION OF MATERIALS	% CORE BOX OR RECOV SAMPLE ERY NO	REMARKS - Drilling time water or action wastering either to action
4.8 48  50 SC - claye  52 SM - grain  54 Spain  52 Sn - poorly  53 SM - 60	, d ,		į.
4.8 48  50 SC - claye  52 SM - grain sand seams approx	Blue green, silty fine		- (
SC - claye  50  1.8  52  SM - Gerain sand seams approx	sand		
SC - claye  1.8  50  SP - poorly  52  SM - G grain sand seams approx			
SC - claye  1.8  50  SP - poorly  52  SM - G grain sand seams approx		J <b>-21</b>	
SC - claye  1.8  52  SP - poorly  54  SM - Grain sand seams approx  59			
SC - claye  1.8  52  SP - poorly  54  SM - Grain sand seams approx			1
SC claye claye  50  SP - poorly  52  SM - grain sand seams approx			
SC claye  claye  SP - poorly  52  SM - grain sand seams approx			
SC claye claye  50  SP - poorly  52  SM - grain sand seams approx			
SC claye claye  50  SP - poorly  52  SM - grain sand seams approx		_	
claye  50 2  SP - poorly  52  SM - G grain sand seams approx	Nue green silty	=	
52 SM - poorly 54 SM - grain sand seams approx	y fine grain sand		
52 SP - poorly 52 SM - grain sand seams approx			
52 SP - poorly 52 SM - grain sand seams approx			
52  SP - poorly  52  SM - grain sand seams approx			
52 SM - poorly 52 SM - grain sand seams approx		J-22	
52  SN - poorly  SM - grain sand seams approx			
52 poorly  52 sm - 6 grain sand seams approx		-	
52  SM - Grain sand seams approx	Blue green fine grain,		
54 SM - Grain sand seams approx	sorted sand		
54 sand seams approx			
54 sand seams approx			
54 grain sand seams approx			
54   sand seams approx	Freen very fine to fine		
50 seams approx	poorly sorted silty	- 1	
50 approx	glauconitic, occasional of silt and clay	f	
53	1/8" thick		
53	· =	4	
53			
53			
60			
60			
60			
60			
60			
			reat was a fit on
			Fish tailed 4" 05 6 inch OD & mudded
			hole for wall
			support,
		,	X   ,
CONTIN			
	TUED ON SHEET 5		
;			
!			07
•			1 85

RILLING LOG	(Cont Sheet) ELEVATION TOP OF H	52.8		Hole No.	52
OJECT		INSTALLATION			SHEET 5
Cooper Riv	er Rediversion	St. Step	hens, SC		OF 8 SHEETS
LEVATION DEPTH	LEGEND CLASSIFICATION (		% CORE BOX RECOV SAM ERY N	PLE (Drilling time O treathering	EMARKS , unter loss, depth of etc. if significant;
<u>a</u> <u>b</u>	SM-green, poorl silty sand.	y sorted	e į į	\	re Loss 11 1
	Silty said.		6.6	X   Fm	59.1 to 62.1 n 3.0
62				Re Lo	c 0.2 ss 2.8
			,	Pu	re Loss 11 2 62.1 to 64.1
			5.0	Ru Re	n 2.0 c 0.1
64			a saggestic filtration and the		ss 1.9 3/8" I.D.
				sp	litspoon re- vered sample.
66			;	b1	quired 175 ows to pene- ate 1.0'.
					11 3 66.6 to 69.3
68			89.0	D-1. Ru Re	n 2.7' c 2.4'
			: ! !	Lo	ss 0.3
			<del>-</del> 1		re Loss 11 4
70				Fn	69.3' to 72.2' n 2.9'
			55.2		c 1.6'
<b>7</b> 2				J=25	
			 	Fn	11 5 1 72.2' to 74.9 in 2.7'
74			59.3	. │	c 1.6' ss 1.1'
				<del>3=26</del>	11 6
23.2 76		·	72.4	Fn	74.9' to 77.8 in 2.9'-Rec 2.1
. •	CONTINUED ON SH	EEU 6			
					841

	o LOG	(Cont	Sheet) ELEVATION TOP OF HOLE 52.81		···	Н	ole No. 52
C	cooper	River	Rediversion St. Steph	ens, S	SC .		SHEET 6
EVATION.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% CORE	BOX OR		REMARKS (villing time, water in a depote of
			(Description)	ERY	NO		ueathering etc. it significants
d	ъ.	1290	d.	<u> </u>	· · ·		g
		1//	SC - Dark green, well con-			I	Fishtailed & set 6
		1//	solidated clayey sand, slight	Ť		D-3	casing to 78.8
		///	ly calcareous, soft, con-			i	grout outside &
		////	tains fragmented shells, i.e.				cemented from 67'
	78	1999	carbonate - sandy mar1.	72.4	_	J-27	to top of rock.
			ATTOM of Book 78 5!	ı			Pu11 7
. 7	78.5	772	Top of Rock 78.5'	-			Fm 77.8 to 80.0
		<b>4</b>		,	1	:	Run 2.2
	1		Sandstone, argillaceous,	1.0		D-4	Rec 2.6
		<b>********</b>	green to grey, well indurate,	118			Gain 0.4
	80	<b></b>	hard, calcareous in part,			1	1
	J	1::::::::	massive, blocky fracture,		-	W-8	Pull 8
_			shell fragments in matrix			W-0	Fm 80.0 to 82.8
.2	81.0						Run 2.8
			Shale - "Claystone" - Shale,	•		í	Rec 2.8
			dark green to dark grey, con-	100			1.00 2.0
	82	;	solidated, massive in part-	100		,	į.
			fissile in part, initially			W <b>-</b> 9	
			very silty sandy, tendency				}
			to slake when drying, soft,	<del></del>	-		<del> </del>
			lutite.			1	Pu11 9
		:	, addice,		:		Fm 82.8 to 85.8
	84						Run 3.0
			-				Rec 3.0
			,	100			
							1
						W-10	
							1
	86						P. 11 10
					!		Pull 10
			•		: i	W-11	Fm 85.8 to 89.0
	•		i		. [		Run 3.2
							Rec 3.2
	20			100		W-12	
	ਰ8 :						
					-		
	;				:	W-13	
	!		:		-		D. 11 11
	į.		- Wholly clay, blocky				Pull 11
	60		choncoidal fracture			W <b>-</b> 14	Fm 89.0' to 92.8' Run 3.8
	90 +			100			Rec 3.8
	!						nee Jag
	i				<u>;</u>		
	1		:			W-15	
	92 1		:				
	+		CONTINUED ON SHEET 7		!		
	į				i		
	,			İ	İ		<i>(</i> )
	· · · · · · · · · · · · · · · · · · ·				}	1	X
	i				i		<b>V</b> J

Į.

	- 100	(Cont S	theet) ELEVATION TOP OF HOLE 52.8 M	SL		Но	le No.	52
OJECT CO	oper Ri	ver Re	diversion St. Ste	ohens.	SC			SHEET 7
	1	1	CLASSIFICATION OF MATERIALS	renare alle	BOX OR	·	RF M.	OF 8 SHEETS
LEVATION	DEPTH	LEGEND	(Description)	, RECOV-	SAMPLE	(Dr	illing time, u.	tter loss, depth of
a	ь		d	ERY	НО	; 14		. if significant) L
-	+	<del></del>	•	•	• •	W <b>~</b> 15	,	
	1 7		Shale - "Claystone"			11-13	Pull 1	l Continued
	1				-			
							Pull 12	
41.0	93.8							to 95.8
41.2	94 _			•		17 16	Run 3.0	
71.4	, J <del></del>		Glauconite zone, Limestone sandy, hard.			W-10	Rec 3.0	}
		┸┰┸╌┰╼	sandy, nard.	100				
	-	4.	Timestana "Caminal Jank	•				
			Limestone, "Coquina" dark			W-17		
	* •	<del>- 1 - 1 - 1</del> -	green, to grey, coarse			M-I/		
	96	T	angular shell fragments, imbricate, in fine carbonate					~ <del></del>
	<del>, , , , , , , , , , , , , , , , , , , </del>	ŢŢ.	sand matrix, vuggy, moderate	_			Pull 13	
	•	4-4-	ly hard, well cemented,	-	•	W-18		to 98.8
			pseudo horizontal parting due			M-10	Muit 200	
	,						Rec 3.0	ŀ
	•		to oyster shell position. Consolidated lime rubble	100		W-19		
	98		Calcirudite			W = 17		
	, ,	$\overrightarrow{I}$						
		111	-97.0 - 97.6 soft glauconitic sand zone					
	1	171.	sand zone		r			
	1 +					į	Pu11 14	
		1111				11 20		to 101.8
	100	T		100		W-20		
	100 ;						Rec 3.0	ļ
	!	╧┰┻┰╌						
	1	4						
	1	<b>T</b>				W-21		
						-		
	102	T	100 2 100 / 6-55 -1		L			
	102		- 100.2 - 100.4 Soft glauconi-	'	,	l	Pull 15	
	:	<del>•</del>	tic sand zone			ľ		8 to 104.8
	ļ <u> </u>	444-		1	:	ļ	Run 3	
	1 1		;			1	Rec 2.7	
	t			90			Loss 0.	3
	104	┰┸┰┸═	10/ 9 = 10E / p1			1		
		TT.	104.8 - 105.4 Broken			1		
	+	二二.	- Soft zone			1		
	+	111	•	1	1			<del> </del>
	÷	TT			_		Pull 16	
	÷			0 -				8' to 107.9
	106			87	-		Run 3.1	
	+	·TT	• 106.9 - 107.9 Soft zone			17.00	Rec 2.7	
	<del>-</del>	<u>, , , , , , , , , , , , , , , , , , , </u>	100 (2 - 107 (2 30)t 20He			W-22	Loss 0.	4
	+				-			
		1						
	<b>-</b>	<b>I</b>				1		
	108				,	1		
	+	~ 'c	ONTINUED ON SHEET 8		• •			
						1		
	1					1		
	:							M
	!					- 1		812
	1					1		7

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RILLING	LOG	(Cont !	Sheet) ELEVATI	ON TOP OF HOLE	52.8		<b></b>	Ho	le No. 52
oied Cooper	River	Rediv	version		St. Steph	ens. SO	3		ISHEET 8  OF8 SHEETS
LEVATION		LEGEND	1	SIFICATION OF	MATERIALS	% CORE	BOX OR	, (D)	REMARKS  willing time water 1 depth of contherence etc. If so with a note and a
a ;	<b>b</b>		Limestone Low Angle		a"	100	· - t	W-23	Pull 17 Fm 107.9 to 110.9 Run 3.0 Rec 3.0
57.4	110 110.2		Normal de		ol contact Silty	-		W-24	
58.1	110.9		,		one with 23	•	•		Pull 18
58.7	111.5 112		spread	with she	ell fragment fine grain a bearing	100		W-26	Fm 110.9 to 113.9 Run 3.0 Rec 3.0
	114		glauconi carbonac	tic, sligh	green, silty ntly tains some nd dissemat-		:	W-27	Pull 19 Fm 113.9 to 118.9 Run 5.0 Rec 4.4 Loss 0.6
64 <b>.</b> 1.	116.9		Limeston	e, Coquina	a, dark	88	! ! !	$\times$	Core Loss
	118		coarse aments in grain same	nd matrix, ly hard, v	ell frag- e fine , Vuggy, well cement-			W-28	
	120		due to o	yster she: ns <b>oli</b> d <b>a</b> ted				W-29	Pull 20 Fm 118.9 to 122.0 Run 3.7
7.9	120.7			en silty g	glauconitic poorly	<b>-</b> 86		<del></del>	Rec 3.2 Loss 0.5
	122	<b>‡</b>		shell be <b>a</b> r				$\geq$	Core Loss
4.8	122.6	1111	воттом от	F HOLE 122	2.6'	<del>• • • • • • • • • • • • • • • • • • • </del>	<u> </u>	. W-30	
		· !							87

I

Hole No. 53

	DIV	ISION	INSTALL	ATION .		SHEET 1	
DRILLING LOG	So	uth Atlantic	St.	Stephe	1	OF 9 SHEE	TS
1 PROJECT			10 SIZE	AND TYPE	E OF BIT	SHOWN FIRM OF MSUSPLITSPOOR	rn l
Cooper River	Redi	version	II DAT	M FOR EL	EVATIO		2.8
2. LOCATION (Coordinates	s or Sta	tion)	1			6" Fishtai	11
G Station 597+	90	75.0 Right G	1		ER'S DESI	GNATION OF DRILL	$\neg$
3. DRILLING AGENCY			L AND	75			
Savannah Distri	ict		∫44 <u>†</u> a†	AL NO UF	SVER	DISTURBED UNDISTURBE	₽
and file number)	n drawii	r (	1.	- 14 1 3 407		N 16 19	
S. NAME OF DRILLER			1:4 75 7	A. NIMHE	# CORE I	oxes /	
T. W. Scott			15 616	VATION SE	ROUND W	ATER 51.0"	
6. DIRECTION OF HOLE			İ		5 1 4	RTED   COMPLETED	$\neg$
TO VERTICAL "INC	LINED	DEC FROM EAT	16 1 A 1	EHULE	8. 1	eb 75 10 Feb 7 <b>5</b>	
			17 1 2	. = . V≜TION T.	JP OF HO	LE 51.8'	$\neg$
7. THICKNESS OF OVERB	SURDEN					Y FOR BORING 84.5	
8. DEPTH DRILLED INTO	ROCK	72.51		A 1 14 4 4	111 616		$\dashv$
9. TOTAL DEPTH OF HC		150.01				and Charlie Deaver	
		<del></del>	المنت المنت		BOX OR	1	
ELEVATION DEPTH LE	EGEND	CLASSIFICATION OF MATERIA (Devious)		ਸੇ <b>ਵ</b> ੰਡੋਵ- ਦੁਸ਼ਤ	SAMPLE NO	REMARKS  *Drilling time, water loss, depth of weathering, etc., if significant and the state of	
1.	1.1	Claser Sand and sand		†	†		
-1/2	///	clay, light tanjoveria				Orilling by 6 inch fish	ı- F
	///		4.11		İ	tail bit in overburden	
, — <u>'</u> Z	///	by black diff compared			( <b>- ر</b> . ا	with use of mud for wal	11
□ □ 1/.	///	small , of ormanic or .		i	., - ,	support.	F
= 1/.	///	-SM-CL-SC-	,	ĺ		1	E
$\frac{2}{2}$	///	Sands are uniform rade	ed,			Soils sampled with 1 3/	′8' <b>⊊</b>
l		subangular, dense.				ID splitspoon at foo	E
		Clay is soft to firm				merrils, low com	<u> </u>
//		homogeneous.		i		not recorded, cuttings	
l	///					monitored. Overburden	$\vdash$
				i I	ļ		
4	///			ĺ		contacts approximate.	⊢
'-=\/,	///			į		W.T. 0.8'	
-//	///			<i>[</i>	}	Date_ 8 Feb. 75	⊢
	///				1		⊢
i//				!		Depth to water	$\vdash$
7/					J-2	during drilling	F
				•	1.7-2		
6						W.T8.0'	<u> </u>
						Water table reading	F
1 -1/						2/1	⊢
				! 		24 hrs. after	
	///			ļ	l	hole completed.	-
1 7/	///			: 1	1		
							$\vdash$
	///			i	1		F
	///				Ì		
42.8 9.0_						1	F
7	7.		· <del></del>			1	
	//,	Green sands, glaucomit				J = Jar Sample	<b>-</b>
	///	silty sands laminated		!			
<u> </u>	1:/>	1/8 - 1/2 Inch consolid			<b></b>	W = Waxed Sample	
	///	fat clar recassional s	aried		1 - 3		F
	///	layers of peat-limite			-,		
\(\frac{1}{2}\)		material. Sants are or	11 1 112		ļ	1	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1/1	graded subangular, be-	٠. •				
-/_	144	-SM-CH-SP-	-	ł			F
12	2/4		<b>.</b> -				
		CONTINUED ON SHEET ."	-		i		F
					1		上
-	}	NOTE: Soils field class	1fied			1	$\vdash$
-=	ĺ	Sp generalanne with the		À	1	an	广
-	ĺ	Soil Slandflinter Sys			!	88	$\vdash$
	ŀ	Series Series Control (gra		i İ	İ		F

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DRILLING	LOG	(Cont	Sheet) ELEVATE	UN TOP OF H	51.8				Hole No.	53	
PROVE 1			version		INSTALLATION	ephens,	SC			SHEET 2	
Cooper	KIVE	i Kedi	1					BOX OR		OF 9 SHEETS	
ELEVATION	DEPTH	LEGEND	CLASS	(Descrip)	OF MATERIALS How)	RECC ER	) V .	SAMPLE	Drilling time.	unier los deposint los il significants	
4 .	h	1.11.11	Green car	d ole ole	auconitic	e		. ' .		<b>g</b>	
			silty sar	nds l <b>a</b> mi	inated with	1					
					consolidate						
					asional var						
					ignite mate	rial.					
	14				anic, very laminated t						
			banded.	maru, i	Iamiimated t	.0					
			-SM-CH-50	) <b>-</b>		į					
											- 1
	•		•			1		J <b>-</b> 4			
	16										
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DRILLING	LOG	(Cont Shee	et) ELEVATION TOP OF HOL	51.8			Hole No.	53
PRO IFCT				PASTALLATION				SHEET 3
Соор	er Riv	ver Redive	rsion	St. Stephe	ens, SC			OF 9 SHEETS
ELEVATION	DEPTH		CLASSIFICATION OF (Docume)	MATERIALS	". CORE PECOV FRY	BOX OR	RE Dipling time weathering o	MAPKS water line depth of the strength of the
	, b.	11.71.11 C.	d opposede ale					κ
			een sands, glad lty s <b>a</b> nds, lami	natad min				
		William.	8 to 1/2" conso	lidated fat				
		1/////	ay layers. Occ	asional				
		//// va	ried layers of	peat-lignite	9			
	30	/////ma	terial					
			SM-CH-CC-			1.5-7		
						,1=,		
		1///						
	32							
	- <b>-</b>							
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		11/1						
		11/1						
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			CONTRACTOR SALVESTOR CONTRACTOR	• • •				
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RILLING	FOG	(Cont S	heet) ELEVATION TOP OF HOLE 51.8'			Hole No. 53
egyget			INSTACLATION			SHEET 4
<u>Cə əp</u>	<u>er Ri</u>	ver Red	iversion	·	100- 00	REMARKS
NOTAVEL	DEPTH	LEGEND	(Description)	RECOV ERY	SAMPLE NO	(Drilling time, water box digit) of weathering etc. it significants
	ь	11/1	, d,	· · · ·	: ' .	, K
8	<del>'</del> 5		See Sheet No. 3			
			Lean clay and silt, greenish brown to brown. Very fine		J-10	
	4n		sands in silt matrix. Sand is uniform graded, subangular		<del></del>	
:			to subround. Lean clay (CL),q the whole is firm. 'CL.ML.	n		
	+5		7			
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	50		•			
		4//	, ,		1-11	
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	52		* *			
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	- ,		, ,	ŀ		
	- Trial					
1.2	55		·	;		
	j.		Fine green glauconitic sands with some silt. Sands are		J-12	
			homogenous, uniform graded, subangular and dense SM. SP.			
			SM SP.			
	55					
	1:1			· ·	<u> </u>	
		÷ •	CONTINUED ON SHEET 5			
						C = 1

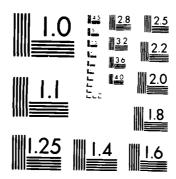
E

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		(Com 3	heet) E-EVATION FOR SECTION 51.81		Hole No. 53	
PROJECT			#19\$###################################		SHEET 5	
Co	oper R	edivers		Territoria, PC	OF 9 SHEETS	_
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	FFCOV SAMME	of Prolong time water loss depth of a constraint	
a .	b	<u></u>	d		×	
					·	
		<b>:</b> :::::::::::::::::::::::::::::::::::	Fine green glanconitic 😘 SM, SP,	nd, 1 <del>-</del> 13		ļ
		<b>[</b>	311, 311,	\$ 1 to the same or passed		1
	62					į
						ı
		<b>!</b>				- 1
		<b>{</b>				
	-	{:::::::::::::::::::::::::::::::::::::				ł
	64					
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			some carbinal on the			ĺ
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COOPER RIVER REDIVERSION PROJECT LAKE MOULTRIE AND SANTEE RIVER SOUTH CAR. (U) ARMY ENGINEER DISTRICT SAVANNAH GA FEB 76 AD-A149 576 2/4 -F/G 8/7 UNCLASSIFIED NL



MICROCOPY RESOLUTION TEST CHART NATIONAL BUREAU OF STANDARDS 1967 A

	LOG	(Cont S			<del></del>	Hole No. 53					
ro ECT	D		INSTALLATION		C	isheet 6   OF 9 SHEETS					
<u> </u>	<u>oper R</u>	iver Re	ediversion St. Stephe		BOX OR	<del>-</del>	REMARKS				
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	RECOV ERY	SAMPLE	(1)	relaing time water in depth of continues in a				
a.	Ъ.		<u>d</u>	e .	<u>,                                    </u>	•	K .				
		1	See Sheet No. 5	ı			ì				
				i							
		}			i						
25.7	77.5	1	Top of Rock 77.5				1				
	70 -		Shala alaustana lutyta				]				
	78		Shale, claystone, lutyte, soft to very soft, hackly			<del></del>					
		<del>-</del>	fracture. Dark blue grey.			l	Pull 1				
27.2	79.0 -	1	irracture. Dark brue grey.		:		Fm 78.0'to 82.0'				
		<del>                                     </del>	Condatana amaillanaous blue		!	:	Run 4.0'				
		: ·	Sandstone, argillaceous, blue grey, massively bedded, hard	:	1	! ]	Rec 3.0'				
	80	1:	to very hard, fine grain, uni-	75		•	LUSS 1.0				
20.5		<u>                                     </u>	L form sorted.	, ,	1	1					
28.5	80.3	===	1		!	1	1				
	-	1=			f . <b>D</b> -	ı	1				
		1	Shale, claystone, lutaceous,		Box	)					
	-		dark blue grey, massively		1 1	1					
	82	!==	bedded, soft.	<del></del>		·					
			180.8			, ,	Pull 2				
		L	] ;			1	Fm 82.0' to 84.0'				
	-		Fissile, horizontal sand	115			Run 2'				
		1	parting, soft.	115	1	W-2	Rec 2.3'				
22 2		<u> </u>				w = 2	Gain 0.3'				
32.2	84	==	h 1		i		h 11 2				
			Sandstone, argillaceous, hard,		İ	W <b>-</b> 3	Pull 3				
33.2	85	:	well cemented, calcareous.		1		Fm 84.0'to 86.8'				
		<del></del>	₹		<del></del>		Run 2.8 Rec 2.8'				
			Shale, claystone, fissile,	100	1		1 NEC 2.0				
	86	ļ	dark blue grey, non-homo-	MC	1						
		1	genous, Lutyte with sandstone		,	W-4					
-35.0	86.8-	1	seam 1/10" @ 86.6' moderately	, , ,							
-			soft, well consolidated,		4		<del> </del>				
35.6	87.4		horizontal parting.			· {	Pull 4				
		<u> </u>	Dark grey silt stone,		!		Fm 86.8' to 92.0'				
	88	1	argillaceous and arenaceous,		D		Run 5.2'				
	-		calcareous, well cemented,		Box 2		Rec 5.2'				
		i	moderately hard, very fine		-	;					
		<del>-</del> -	sand, silt and clay.	100	1	1					
	-	1=-=	<u> </u>	100		i					
	-	1	Shale, claystone, fissile,		1	W-5					
	90	1 =	dark blue green, lutaceous,			W-5					
		- <del>-</del> -	soft homogenous, conchoidal								
		1	fracture.		1	ļ	}				
				MC							
			Broken 91.5 - 92.0	60.0%	İ	-	4				
	92 -	<del> </del> -	Displays "slicks" in clay	30.0%	1	l 					
	72 -		CONTINUED ON SHEET 7								
	-	1				ı	1				
		1	! 								
		1			<u>f</u>	1	0-				
		1	] 			ı	72				
		1									

•

	rog	(Cont S	Sheet) ELEVATION TOP OF HOLE 51.81			Но	le No.	53	
Coope	er Rive	er Red	iversion St. Stephe	ns. Sc				SHEET /	1
	1		CLASSIFICATION OF MATERIALS		BOX OR		REMA		┨
ELEVATION	DEPTH	LEGEND	(Description)	RECOV ERY	SAMPLE NO.		illing time, wa eathering, etc.	ter luss, depth of if significant)	ł
	b	c	d	ę.	f		, , , , , ,		1
40.7	92.5		See Sheet No. 6	,			Pull 5		ŀ
41.2	93.0		Glauconitic sandstone, green	•			Fm 92.0	to 95.01	ŀ
71,2	93.0	1 1	calcareously cemented, hard,		· 	W-6	Run 3.0		Ł
	_	T + T	fine grain.		1		Rec 3.0		F
	94	-	Limestone, "Coquina", light						F
	7 -		greenish cream, hard sound		,				F
	! =		rock, abundant glauconite						Ì
	_		grains in an arenaceous		Box	ļ			4
	] =		shell rock composed of		3		Pull 6		Ŀ
	06 -	<del></del> _	coarse angular imbricate					to 98.0'	ŀ
	96		shell fragments in glau-		!		Run 3.0	!	
	! -		conitic sandy matrix,		i		Rec 3.0	1	ľ
	· -	- 1	Large oster shells give psuedo horizontal parting.			W-7			þ
			Zonal variation follows:			1	1		ŀ
			Soud: AMITMETON INTIONS.				[		t
	98	1	95.3 - 95.4 - Soft rock						ŀ
							Pull 7		Ł
	=		95.7-95.8 - Zones composed	1	,	!		to 101.0'	F
	-7		97.8-97.9 of clay-silt		, ,	W-8	Run 3'	<del></del>	F
	! =	1-1-	matrix with			w-8	Rec 3'		þ
	100	1 1	pea size shell		!		]		E
		1	fragments						t
		1 7 1	98.0-98.6 - Poor rock zone						ŀ
	1	T	composed of		Вох				F
į	-	7,7	very soft to		4		Pull 8		F
:			soft rock, con-				101	to 104.6'	F
į	102		sisting of			W <b>-</b> 9	Run 3.6		F
;			green glau-		·		Rec 3.6		E
			conitic sandy	į	-				E
			marl & loose	ļ		-	1		E
	·		noncemented						F
	104	7	shell limeston	=			)		F
1		-,-I	98.6-98.9 - Cemented soft	,			}		F
1		7	rock				<u> </u>		+
į		<del></del>	Ì	İ		W-10	Pull 9		F
, I		<u>+</u>	98.9-101 - Vuggy	ļ	į. I		1	5'to 107.2'	F
į	106	4-1-1-			_ !		Run 2.6		F
į	100				Box !	W-11	Rec 2.6		E
	7				5	1.7_10	]		F
i	-7	I	107.2 107.4 . 0-55	i	j	W-12	İ		1
	4	1	107.2 - 107.4 - Soft rock		ļ		<b> </b>		4
	$\exists$	1	composed of sandy marl	1	f	W-13	†		1
!	108					J	L		F
1	- 1		CONTINUED ON SHEET 8		1				F
	7	1			į		!		F
ĺ	_7	Ì	,	i	ļ				F
	コ		!	1	İ		]	011	1
			!	j	j		]	77	ļ.

RILLING	LOG (	Cont S	Hole No. 53				
коња Сооре	er Rive	r Redi	version St. St	epher.	s, SC		SHIPT B
ELEVATION	DEPTH	LEGEND	(Described)	RECOV	BOX OR	. 10	REMARKS  clinia time mater at the distribution of the contract
<b>.</b>	b	<u> </u>	See Sheet No. 7	· · ·	. '	W-13	1
	09.1 09.3		Glauconitic sand zone	84	Box 5	W-14	Run 3.8' Rec 3.2'
59.2	110		Sandstone, calcareous, cream to grey, medium grain, very hard, massively bedded				CL= 0.6
	112		Sand, green, argillaceous			: 15	Pull 11 Fm 111.0' to 114.0' Run 3.0'
			glauconitic, fine grain, subangular to subrounded, loose.	100		W-15	Rec 3.0'
	114-		SM Blended Spl. Lab Classifies as SM	93	- Box - 6	D-16	Fm 114.0' to 115.5"
63.7	115.5	<u> </u>			1		Run 1.5' Rec 1.4'
-64.3	116.H		Sandstone, calcareous, dens	100		   W-17	Pull 14 Fm 118.3' to 121.3' Run 3.0' Rec 3.0'
	118		Contains zone of sand and uncemented fossil fragments with some pockets of clay.		<del> </del>	w-18	
	- <u> </u>	<del></del>		100	-	w-19	Pull 15 Fm 121.3' to 124.0' Run 2.7' Rec 2.7'
	120			100	Вох	<del></del>	
	122		• •	•	; <b>7</b> :		,
;	-			100	 		
	124	<u></u>	CONTINUED ON SHEET 9		1	<del></del>	<del></del>
!	1					  -  -  -	95

HLLING	G LOG (Cont !	Sheet) ELEVATION TOP OF HOLE 51.81			Hole No. 53	
JEC7		INSTALLATION			5	HEET 9
oper	River Redive	rsion St. Steph			<del></del>	of 9 SHEETS
LEVATION	DEPTH LEGEND	CLASSIFICATION OF MATERIALS (Description)  d	% CORE RECOV ERY	BOX OR SAMPLE NO	REMARI (Drilling time, wate weathering, etc. i)	r loss, depth of
		Lost during washing hole April 29, 1975	X		Scale Change (	
3.2	125	· 			washing hole.	
5.5	127.3	Sandy limestone, gray, dense, fossiliferous, with sand pockets.  SM - Sand, gray, dense,	70		Pull 16 Fm 125.0' to Run 5.0' Rec 3.5' C.L. 1.5'	130.0'
	135	argillaceous, with shell fragments, some clay layersLimestone remnant at 130.0'	20		Pull 17 Fm 130.0' to Run 5.0' Rec 1.0' C.L. 4.0'	135.0'
6.0	137.8	Sandy limestone, gray, dense,	48		Pull 18 Fm 135.0' to Run 5.0' Rec 2.4'	140.0'
8.2	140	with sand pockets.			C.L. 2.6'	
2.2	144	SM - Sand, gray, with loose coarse, shell fragments.	64		Pull 19 Fm 140.0' to Run 5.0' Rec 2.4' C.L. 1.8'	145.0'
	145	SM - Sand, gray, dense, argillaceous, with some clay layers.			Pull 20 Fm 145.0' to Run 5.0'	150.0'
8.2	150	-Small dense limestone layer from 148.8' to 149.3'.	100		Rec 5.0'	
		Bottom of Hole - 150.0 Ft.				
		•				
						96

"

								Hole No.	54	
DRILLI	NG LO	c l	VISION	INSTALL					SHEET 1	٦
PROJECT			South Atlantic		tephen		hv c 1		OF 3 SHEETS	_
Cooper R	iver F	Redivat	rsion	11. DATE	IN FOR EL	EVATION	SHOWN	core bbr (TBM or MSL)	l. 6"fishta	4
LOCATION	(Coordina	ter or Sta	ntion)	MSL						_
		75.01	Left of <b>C</b> enterline	1		R'S DESI	GNATION	OF DRILL		1
3 DRILLING AGENCY Avannah District				CME		OVER-	DIST	URBED	UNDISTURBED	┨
HOLE NO (As shown on drawing title: and tile number) 54					AL NO. OF	ES TAKE	N	0	_	
NAME OF D				14. TOT	L NUMBE	R CORE E	OXES	6		]
T. W. S				15. ELE	ATION GE	OUND WA	TER	50.0		
DIRECTION				16. DATI	HOLE	i	RTED	-	MPLETED -5-75	٦
X VERTIC	AL	NCLINED	DEG. FROM VERT.		44710N 70		3-75		3-73	┨
THICKNESS	OF OVE	RBURDE	N 77.1'		AL CORE F			1.9	. 2	Н
DEPTH DRI	LLED IN	TO ROCK	39.9'		ATURE OF			ORING 24	•~ 3	4
TOTAL DEF	PTH OF	HOLE	117.0	Charl	ie Can	ning a	nd Cha	rles M.	Deaver	1
	DEPTH	LEGEND	CLASSIFICATION OF MATERIA (Description)	LS	T CORE RECOV- ERY	BOX OR SAMPLE NO.	(Drill	REMAR ing time, wate ithering, etc.,	KS r less, depth of il significant)	
-		•			•	<u>`</u>	Fich	tail from	0.01	+
İ	$\exists$							7.1'.		ł
								. •		ı
	=						Scale	e Change	75.0	
{	⇒						l		1	1
	75 —						w = \	Waxes Sam	ipie	1
1	=						W.T	50.0	1	
į	76 —						Data	3/3/75		ı
į								to wate		١
į	コ							g drilli		ı
<b>-</b> 25.2	77		Top of Rock = -25.2 Sandstone, calcareous,					Pull 1		┪
i	=		slightly argillaceous,	hard.				77.1' to	80.1	Ì
		.:':	dense, well cemented.	•		1		Run - 3.	9'	
1			Uichle backen	_	90			Rec - 2.		
27.9	. , , =		Highly broken zone with slickensides - 78.2 to		90	1		C.L	0.3	1
<i>y</i>	9.8	•	, , , , ,							
			Candata and Illiana			Box 1				
ĺ	=		Sandstone, argillaceous highly indurated with			·		Pull 2		1
4	81		soft clay layers. Con				<u>W-1</u>	80.1' to Run - 3.		
ì	01	•	some shell fragments,		-		ш_2	Rec - 2.		
İ	-		ly micaceous, light to	d <b>ar</b> k	<b>86.</b> 6			C.L 0	.4	
-			gray.					1		
-	$\exists$							]		
	83	• • •	•					] .		
i	۳- ده						W-3	Pu11 3		┪
İ	3					Вох 2	<del>"</del> -3-	83.1 to	84.5	
					135.7	DUA 2	W-4	Run - 1.	4, Rec-1.9	-
	$\exists$	<u>:</u>						Gain - 0	.5	4
32.6	85 🗌	<u>=</u> ==	Shale (See Page 2)					1		
	$\exists$		COMPTNIED ON CUEET ?							
İ	$\exists$		CONTINUED ON SHEET 2							
; !			NOTE: Soils field class:		I			[		Í
ļ	=		Esti Classification Sys		-				47	F
			<b>V</b> -			ı	1	I		ľ

	LOG	(Cont S	heet) ELEVATION TOP OF HOLE 51.9			Но	ole No.	54	
MOJECT			INSTALLATION	2	^			SHEET Z	
Loop	er Kive	r kedi	version St. Steph			<del></del>	****	OF 3 SHEETS	4
ELEVATION	DEPTH b	LEGEND	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV ERY	BOX OR SAMPLE NO.	(D	REMA rilling time, ua weathering, etc.,	iter loss, depth of	
	_		Shale, dark gray, dense,	† <u>-</u> -	1		Pull 4	<u> </u>	7
24 2	05 0		fissile bedded, slightly				84.5' to		E
	85.9	<del></del>	calcareous	94.7			Run 1.9,	Rec - 1.8	ŀ
34.2	86.1		7 (	1			C.L 0	0.1	F
	_		Sandstone, argillaceous,		1		Pull 5		7
	87		light gray, well cemented.	0.0	Box 2		86.4' to		ŀ
	=	_=	<u> </u>	0.0	DOX 4		C.L 1	Rec 0.0	t
			Shale, dark gray, fissile	1	1	W-5	C.E 1	• • /	t
		= ==	bedded, dense, slightly	<u> </u>	1		D. 11 (	<del></del>	╁
		=	calcareous.	ĺ	1		Pull 6 88.1' to	. 01 11	Ł
	89							Rec 4.7	E
							Gain 1.7		F
	=			156.6	i i		1		F
	ļ				İ	1	]		F
				ļ			}		þ
	91	=							þ
	-				1		<del></del>	<del></del>	ᅷ
	=			1	Box 3		Pull 7	02 7!	þ
40.0	91.9	<del>-</del>	Candatana	100			91.1' to	Rec 1.6	E
40.1	92.0	<del>  </del>	Sandstone, green glauconitic			W-6	C.L. 0.0		Ŀ
			Shell limestone, light	<del> </del>	1		1		F
41.5	93.4		gray, hard, dense.		İ		Pull 8		F
• -	70.		3,	4	1	<u> </u>	92.7' to		F
	: 7	1	Shell limestone, light gray,	1	1	W-7	Run 3.0'	, Rec 2.8	F
			coquina, soft to moderately	93.3			C. L. O.	2	-
	, .	7	hard.		}		ļ		þ
	95		02 / 1 1 0/ 51	1	1	<u> </u>			E
	_	1	Soft zone - 93.4' to 94.5'			W-8			E
		11	Soft zone 95.7' to 98.7'					<del></del>	F
			2012 2010 7717 20 7017				Pull 9		F
	1		Soft Zone-99.8' to 103.0'				95.7' to		F
	97	7 -		J			Run 3.0'	, Rec 2.8'	F
1	-	1		93.3			C. L. O.	,2	F
	7	77		[					þ
		1		1	Box 4				þ
: 		+ +							Þ
	99	+++	•				Pull 10		七
	77						98.7' to	101.7'	F
	-	<del>-1</del>					Run 3.0'	, Rec 2.8'	F
				93.3	1	N-9	C.L. 0.2	2 1	-
t i									F
i		1,1			1	<b>V-10</b>			F
	101	ココ		ļ					#
	4	!	CONTINUED ON SHEET 3	j			<b>i</b> 		Ł
1	7	1							F
		}		ļ		Ì			E
İ	:1	i						92	E
!				1				, 0	-

PROJECT			heet) FLEVATION TOP OF HOLE	INSTALLATION				le No.	SHEFT 3
Cooper	River	Rediv	ersion	St. Stephe	ns, SC			OF 3 SHEETS	
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF	MATERIALS	% CORE	BOX OR	(D)	illing time.	MARKS uniter law depile of it of significants
a	ь		d		ERY	NO 1	i "	euinering, ei	K. IJ MENIJICANI)
		1 1	· · · · · · · · · · · · · · · · · · ·		· · · · · · ·		• 1	•	<u>.</u>
							i		
						Box 4		Pull II	
1					I	I			to 104.7'
					İ	:		Run 3.0	
•	103					:		Rec 2.9 C. L. 0	
:					96.6	í i		D. L. U	• 1
	_	T			90.0	:	W-11		
		<u> </u>				!	M-11		
	_					!			
	105					1		Pull 12	
					; ;	:			to 108.0'
		1 7			1			Run 3.3	
		1 1 1				Box 5		Rec 2.8	
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			84.8		:W-13	C.L. 0.	. 5 '
		++++			į	!			
;	107				'	i	i		
					:	1	:	1	
<b>-5</b> 6 <b>.</b> 2	108.1	L			·				
J = • •		11.	Cand Correct	- Uncil		i !		Pull 13	3
		1///	Sand, Gray, dense some zones of "SI			! }	W-14	108.0'	to 111.0'
	109		some zones of Si	sand	1			Run 3.0	) <b>'</b>
į	_				86.6		!	Rec 2.6	)'
	_						!	<b>р. г.</b> с	).4·
		1///					1		
	_							ļ	
-59.1	111 —	////			i !	i			
	111.5		Sand, gray, argi	illaceous,			i	Pull 1	.4
-39.0		/ / / .	√loose.					111.0'	to 114.0'
-60.3	112.2		Sandstone, dense	e, well				Run 3.	
	114.4.	ITIT	\cemented.	·	53.3	Box 6	:	Rec 1.	
		<b>         </b>	Sand, gray, argi	ill <b>ac</b> eous			i	C. L.	1.4'
	113	7 4 7 4	loose						
61.4	113.3		Chall lime-		ļ		ļ		
,	_	, 1-,-	Shell limestone, fossiliferous, '	, gray, hard,					
;	-	1,1	rossiliterous,	codurua			1	Pull 1	.5
	_	1						114.0'	to 117.0'
	115	1,1			1			Run 3.	0.
		T			110.0		<u> </u>	Rec 3.	
1						ļ	W-15	Gain O	.3
						į i	<u> </u>	_	
		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			}	l r			
65.1	117 -						i		
		-	BOTTOM OF HOLE -	65.1			<del></del>	<del>                                     </del>	
	_					į.		}	
						!	:		
İ						1			40
						i		1	• 7

T

55 Hole No. 8 THEETS St. Stephens, SC 10 SIZE AND TYPE OF BIT 4x51," ID Splitspoon & 4x5 Core Bb1 12 MANUFACTURER'S DESIGNATION OF DRILL UNDISTURBED 27 COMPLETED

Savannah District
4. HOLE NO. (As shown on drawing title!
and file number) 13 TOTAL NO. OF OVER- DISTURBED BURDEN SAMPLES TAKEN 15 S. NAME OF DRILLER 14 TOTAL NUMBER CORE BOXES 15 ELEVATION GROUND WATER 47.0 Scott STARTED 6. DIRECTION OF HOLE 16 DATE HOLE 2 Feb 75 X VERTICAL TINCLINED 6 Feb 75 17 ELEVATION TOP OF HOLE 49.0 74.0 THICKNESS OF OVERBURDEN 18. TOTAL CORE RECOVERY FOR BORING 43.5 B. DEPTH DRILLED INTO ROCK 19. SIGNATURE OF INSPECTOR 117.5 TOTAL DEPTH OF HOLE William E. Hancock, REMARKS
(Drilling time, water lose, depth of weathering, etc., if significant)
BLOWS % CORE CLASSIFICATION OF MATERIALS (Description) BOX OR ELEVATION DEPTH LEGEND NO SM - Black fine grain silty W. T. 2.0' DATE 2-2-75 2.0' sand and organic silts. J-1 48.0 Depth to water during drilling SC - Tan fine grain clayey J-2 s**a**nd 2.0' W. T. Water table reading 24 hrs. after hole completed. Soil horizons & stratum 45.0 approximately set from bit cuttings and split-SP - White poorly sorted spoon samples. fine grain sand J-3 J = Jar Sample W = Waxed SampleLAB CLASSIFICATION ELEV. CLAS 5 60.1-(-59.1) 40.0 SM 61.9-(-60.1) SM Blue green sand, laminated, fine grain, poorly sorted sands with consolidated fat clays - occasional very thin seams of peat - lignite J-4 material, some glauconite and phosphate grains SP. CH, SM CONTINUED ON SHEET 2 NOTE: Soils field classified in appointance with the Unified I Classification System.

NSTALLATION

CME 75

South Atlantic

DRILLING LOG

3. DRILLING AGENCY

Cooper River Rediversion

LOCATION (Coordinates or Station) Powerhouse Site Stat 598+60 75 Ft. Right

KILLING	LOG	(Cont Shee	et) ELEVATION TOP OF HOLE 49.0			Hole No.	<b>5</b> 5
ROJECT			INSTALLATION				SHEET 2
	er Ri	ver Redive	ersion St. Ste	phens, S	C		TOF 8 SHELS
ELEVATION		LEGEND	CLASSIFICATION OF MATERIALS	" CORE RECOV ERY	BOX OR SAMPLE NO	(Drilling time	ARKS Liter le L'est l'
	ь	77781	ue green sands,lamin	↓ e	1		к BLOWS
;		///ped	fine grain sands winsolidated fat clays	th			
					1		
	14				:		
					<b>J</b> -5		
	16						100
					1		
	18				:		
	20						
	-				<b>J</b> -6		
							10
1	22				1		
	-			•			
	_						
5.0	24 -						
	- - 	SC Cla	- tan, fine grain ayey sand				
					J-7		
:	26 -			1			10
2,0	27			i			
	28	fit	ne green sand laminated grain sand with factors. 5P-5M	it	: :		
			ONTINUED ON SHEET 3				
	-	1		•			<i>i</i> _ •
		-1					

		(Com	20061)	VATION TOP OF HOLE 49.0				Hole No.	55	
DIECT			<del></del>	Τ,	NSTALLATION				SHEET	3
Coc	ner	River	_Rediv	ersion	St. Step	hens,	SC		of 8	SHEETS
			1 -	LASSIFICATION OF M		. CORE	BOX OR		AARKS	
EVATION	DEPTH	LEGEND	' i	(Deursption)		RECOV	NO	(Drilling time v ueathering et		
4	ь	1	1	d		e e				BLOWS
•	•	111	<b>7</b>	•		† ·	*		•	
	-		Rlug	green sand	s. laminat	1				
			od fi	ne grain s	onde with	•				
	-		yeu II	ne grain s	anus witi	1				
	-		conso	lidated fa	clays.					
				ional very						
	<b>3</b> 0		seams	of peat -	lignite					
	-		mater	ial-sands	in <b>c</b> lude		1 - 0 1			
			glauc	onite and	phospha te	•	J-8			35
			grain							
			4							
	-		7) %							
	32	1//	97 68							
		1.1.//								
		1.//	<i>*</i>							
	-	1.//	<i>'</i> 3							
		1///								
		1////	<b>*</b>							
		4.//./				1	1			
	34	V. // :					•			
		1///					i			
	_	5//								
!	!	V //					<del></del>			
į	-	1//	7				J-9			
	36						1			75
1	20	1//	 د							1)
i 3	, -	///	7				:			
	: -		=			i	;			
		1//	4			!	:			
							1			
!	!		1			1				
j	38		7			i	1 !			
			7			1	į i			
		1///	#			1				
į.			-			1	I .			
,			3				· .			
							! !			
	40_		-							
	40_		<i>4</i>							60
			2				J10			
			4				Ω TΩ			
			1			1	<del></del>			
	;					1	1			
:		Y JII.	4				1			
	42		4			:				
	_	<i>\!.!.</i> }	4			:				
1	-	1//	4							
1		1///	<sup>2</sup>							
			<b>*</b>							
:						1				
	-	4 <i>4///</i> //	•ļ							
	44		<b>-</b>		errin i					
		4 -4	CONT	INUED ON SE	EET 4					
		-								
;		:								
		1	1						1	'
1		1				1				02
1										

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	LOG	(Cont S	heet) ELEVATION TOP OF HOLE	49.0		Hole No.	55
PROJECT	C			NSTALLATION			SHELL 4
	Coo	par Riv	ver Rediversion		ns, SC		Tot 8 sees
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF N - Descriptions	REC	CORE BOX OR	(Dolling time	MARKS  unifer in a define t
	h		d d		RY NO	resultantes t	g BLOWS
	•	11.18	SM-CH- Bluegree		`		k DEOWS
			laminated fine				
		1///	poorly sorted,	silty			
		1///	sands with cons	solidated			
			fat clays. Occ		J-11		
	46		thin seams of p		~		60
			lignite materia	al, glauco-			
			nite and phospi	nate grains			
		11/1/2	present in sand	ds.			
	10	1.11					
	48	1/1/2					
		11/1/.					
		8//. J					
		///					i
		11.1					
	50	1.16 %					
		1/1/.					
		11.1			J-12		30
		1/1/1					
		1//					ĺ
	-0						
	52	1.///					j
		11.11		•			İ
		4/1			;		
	54				i		ļ
•	J-4	1/1		į			
		1///		:			}
				1			136
		1/		İ			
		//			X		
:	56	1/1					į
					1 :		}
				•			}
		1///					1
	- 4.7						·
	58						
		///					
	<b>C</b> ()						
(	60						
		; (	CONTINUED ON SHE	ET 5			
		•					
		i					103
		•					

	LOG	(Cont S	neet) Estation top or hold		Hole No. 5	) 5 Tom -
MOJECT COOK	er di	ver Re	diversion St. St.	options, we		,
ELEVATION	Б	LEGEND	SM - Green, fine grack glauconitic sand, 4-140 green			<b>.</b>
	62					
	64					
-16 0	65 66		SP - Green fire grain, poorly sorted sand	1 11		
	68					
21.0	70		SM = Green Silts For C with Some Tox	,r v		٠.
	<b>7</b> 2					
.25.0	74		Top of Rock (1.0)  Sandstone, be only  argitlaceous, ordered  firm to highly only  dated, contain contain  leached toseil contain		1 - 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
	; <b>7</b> 6		CONTINUED ON SHEET 6		}	
		•			1	104

E

	LOG	(Cont S	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Но	le No. 55
Coc	per 8	liver	Rediversion St. St.	phei	ns, S	С	SHE! 6 (OF 8 SHE'S
EVATION	DEPTH	regend	CLASSIFICATION OF MATERIALS  Discription	*• CORE RECOV ERY	BOX O	110	REMARKS  Illing time tenter to act to the eathering etc. at organic of the eathering etc.
	76.5			ť	. 1	W-3	<b>I</b>
• •	,,,,		Sandstone, dark green		-		Pull 2
8.5	77.5		fine to medium grain, glauconitic moderately  hard; well cemented with			W-4	Fm 76.5' to 80.0
	78		shell fragments, also animal burrows present.		D.	W-5	CL = 0.0
					Box 1		
1.0	80		Shale - "Claystone"			W-6	
			blue-green, gradational sandy and silty initial ly, massive, soft to			W-7	1
			moderately hard, with				Run 2.4' Rec 2.4'
	82		Sandstone, blue-green,			W-8	
			argillaceous sandstone moderately hard to soft,				Pull 4
4.6	83.6		well compacted, loosely cemented, horizontal parting.		Box	W-9	Fm 82.4' to 84 Run 2.3' Rec 2.3'
	84		par tring.		2	W-10	
			Shale - "Claystone"				
			Blue-green, consolidated soft, fissile, slakes		! 	ļ	Pull 5 Fm 84.7 to 90.0
	86		when exposed to air,				Run 5.3'
	(,)		blocky, conchoidal fracture.				Rec 2.3'
					!	70 7 7	NOTE: Run ex-
					-	W-11	tended to inab
	88	Œ		;			due to malfunc
							tion of catche spring.
i i	!	===	88.9 - 89.0 Broken hackly fracture zone				1, ·
			nackly fracture zone		Box		
į	90	-: <del></del>			3		
1.5	90.5						Pull 6
	-		Limestone, grey to light "Coquina". (See Sheet 7)				Fm 90.0' to 93 Run 3.6'
	92		ooquina , (see smet 1)			W-12	
•	!		CONTINUED ON SHEET 7				
							1-
	1					ĺ	105

	LOG	(Cont S				Hol	le No. 55
COO	ner "	j ver	Rediversion St. St.	ephero	3 SC		SHEET 7
			CLASSIFICATION OF MATERIALS	. CORF	BOX OF		REMARKS
ELEVATION	DEPTH	LEGEND	Description (	RECOV ER1	SAMPLE	Den	illing time water loss depth of eathering etc. if significant)
<u>a</u>	<u>b</u>	, c	d	·	į t	i .	, K
	-		Limestone, "Coquina", gre	э <b>у</b>	Box	, 1	11 11 00 =
	-	1	to greenish cream, vuggy		3	-	Pull #6 Con't
	ļ <u> </u>	-	inclusions of glauconiti		4	: 1	
	-	1-1-	sands, moderately hard,		ł	; 1	Į į
		<del>                                     </del>	to hard, coarse, imbrica	ı te	- <del>-</del>		Pull 7
	94 _	<del></del>	structure in a sandy		! !	. 1	Fm 93.6' to 96.6
	! -	1	matrix.		Box	}	Run 3.0'
	-	<u></u>	<u>i</u>	100		W-13	Rec 3.0'
	-	<del></del>	7			}	1
	_	#	<b>-</b> •				1
	96 —	$\vdash$ $\vdash$	96 61 97 91 - 51			,,,	1
	- T	<b>—</b>	96.6' - 97.2' soft rock			W-14	1
		1	zone.		<b>-</b>		D.: 3.2. C
		1	•			}	Pull 8
	-			90	į		Fm 96.6' to 98.6
	; -		<b>-</b> :		:	W_1 5	Run 2.0' Rec 1.8'
	98 -	<del></del>	<del>.</del>				Rec 1.8' Loss 0-2
			<b>▼</b>	i	-		1000 U-4
		+1-1-	•		i	<del>;                                    </del>	
		11	<b>4</b> •		!	ì	Pull 9
	· -	<del>                                     </del>	•		ŀ	W-16	Fm 98.6' to 101
	,		1		!	<u> </u>	Run 3.0'
	100 -	μ		100	-		Rec 3.0'
i	_		<del>-</del>	, 100	1		ł .
	- -	<del>                                     </del>	•	0		W-17	1
			<del>-</del>		Box	1	1
		1	100 11 100 61	-	5	-	
	102	11	102.1' - 103.7' very		1	1	Pull 10
		<b> </b>	hard sound rock, well		1 .		Fm 101.6 to 103
		<del>                                     </del>	cemented, large % of calcareous sands,	1	F .	1	Run 2.1
			- calcareous sands, - arenaceous limestone	1	ţ .		Rec 2.1'
	-	<del></del>	· grenaceous rimestone ·	100	1	W-18	1
		<del></del>	4 3				
	104	1	•	1		1	0,11 11
		<del>                                     </del>	•	1		1	Pull 11 Fm 103.7' to 108
			- •				Fm 103.7' to 108 Rvn 4.3'
			•			W-19	Rec 4.3'
i		1		I		<u></u>	1
	106	ПП	7	i	-	-1	j l
	106	+++-	•	100	Box	<u> </u>	į l
		1	Gradational lime rubble	* * **********************************	6		
	107		and sandstone	-	-	¥-20	1
58 <sub>-</sub> N	•		Sandstone, green,	4		1	1
58.0		1.	argillaceous glauconitic			١	1
58.0		1				1	1
	108		soft rock, fine grain.			<b></b>	<del> </del>
	108		soft rock, fine grain. CONTINUED ON SHEET 8	***			
	108		soft rock, fine grain.	***	कर ≖ल	) <del>-</del>	
	108		soft rock, fine grain.	•••	<b>-</b> . <b>4</b>		101
	108		soft rock, fine grain.	•••	u v u vid		100

	FOG	(Cont	sheet)	• Ст нов <b>49</b> .	.01		Ho	le No.	55	
567				INSTALLATION					SHEET	•
Co	oope	r River	Rediversi	on St.	St <u>ephens</u>		<b>,</b>			SHEETS
LEVATION	DEPT	u TEND		ION OF MATERIALS	* CORE RECOV ERV	BOX OR SAMPLE NO	· /Dr	REI Illing time eathering, et		
3	, h	· · · · · ·	Sands, sil	d tv green		. '	٠ .	Pull	. <sup>K</sup> 12	
			glauconiti	c argillaced cted catcare			W-21	Fm 10	0.8	to
	1				26.5% MC			Run 3	3.7	
	110	1			27.8%	Box 6	<b>W-</b> 22			
	•	1			100					
62.7	111.	7	<b>*</b>							
63.0	112		\argillaco	nal contact cous calcare				Pull 1		114.5
		1 7 7	· \"coquina"	to limesto	one -		W-23	Run 2. Rec 2.		
			Limestone, vuggy, well very hard s	cemented,	75			Loss C	1.71	
	114		green, imbi	icate struction limey san		Box 7	\-24			
66.1	115.	<del></del>	matrix, lim Tstone, ca	erubble she	11-	•	W-25	Pull 1 FM 114	.5'To	117.5
	116		Sands, gree	en, fine gra ft, consolic	ain, dated		W-26	Run 3. Rec 3.		
67.3			calcareous	s silts, mar	100					
	117	<del></del>	Limestone				₩-27			
68 5	117		Sands, gre	,						
-68.5		.5	Sands, gre	Wola 117 5	•					
	117. 118	.5		Hole 117.5			:			
		.5		Hole 117.5			:			
		.5		Hole 117.5	<b>3.</b>		:			
		.5		Hole 117.5	; ·					
		.5		Hole 117.5	j					
		.5		Hole 117.5	j.					
		.5		Hole 117.5						
		•5		Hole 117.5						
		•5		Hole 117.5						
		•5		Hole 117.5					16	

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Hole No. 56 INSTALLATION DRILLING LOG OF 6 SHEETS St. Stephens, S.C. South Atlantic 10. SIZE AND TYPE OF BIT 4x5 Dennison Bb1; 1 3/8" Cooper River Rediversion 2. LOCATION (Coordinates or Station) Stat. 598+60; 140' Rt. of C 12 MANUFACTURER'S DESIGNATION OF DRILL 3. DRILLING AGENCY 13 TOTAL NO. OF OVER- DISTURBED BURDEN SAMPLES TAKEN 15 Savannah District UNDISTURFED HOLE NO (As shown on drawing title and file number) 14, TOTAL NUMBER CORE BOXES S. NAME OF DRILLER 15. ELEVATION GROUND WATER +48.1 MSL Artesian Scott, T. W. 6 DIRECTION OF HOLE STARTED I COMPLETED 16 DATE HOLE 12 Feb 75 17 Feb 75 X VERTICAL \_\_\_INCLINED 17 ELEVATION TOP OF HOLE 48.1 THICKNESS OF OVERBURDEN 18 TOTAL CORE RECOVERY FOR BORING DEPTH DRILLED INTO ROCK 44.6 SIGNATURE OF INSPECTOR W.E. Hancock 9. TOTAL DEPTH OF HOLE T CORF BOX OR SAMPLE REMARKS
(Drilling ne, water loss, depth of weathering, etc., if significant) CLASSIFICATION OF MATERIALS (Description) ELEVATION DEPTH | LEGEND SM Black to tan, silty sand fine grain subangular, Qtz. Saturated, firm, uniform W.T. 0.5' 45.6 GC Tan, Clayey coarse grain Date 12 Feb 75 sand and pea gravel. Angular Depth to water gravel, dense. during drilling J-2 W.T. +2.0' Water table readin 48\_hrs. after Blue grey, sand, very fine to fine poorly sorted with hole completed. interbedded silty clay. hole cased to -26' Sand layers are dense and the J-3 clay layers are stiff to firm. J = Jar Sample SM, CL, SP W = Waxed Sample J-4 D = Denison Sample Borehole advanced with6-inch fishtail bit, supported with drilling mud; cuttings continuously examine and samples retrieve with  $1\overline{3}/8$ " 1D. Splitspoon at 5 foot J-6 intervals CONTINUED ON SHEET 2 YOTE: Soils field classified ordance with the Unified - Africation System.

	•	Com 3	heet) ELEVATION TUP OF HOLE 48.1		_	Hole No. 56		╛
iect Coc	per Ri	ver Re	diversion		C C	f .	HEET 2	]
Por	verhous	e Site			BOX OR	REMARI	of 6 SHEETS	+
EVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS ( Description )	RECOV- ERY	SAMPLE NO.	(Drilling time, unite uenthering, etc., if	loss, depth of	١
å	ь	700	<u> </u>	. e				╁
	1 1		Green, clayey, glauconitic,		j :	J-7		F
	! -		sand, carbonate-quartz grain					ļ
	!		coarse, with shell fragments.	2	ļ '			ł
	; 1							ŀ
	35				] .	. [		t
	33					7 0		Ł
	}					J-8		F
		2.22		Ì				F
			SP - Dark grey, sand, fine					þ
	-		grain with liminations of					H
	, =		silty clay, CL. Sands are		!			
	40		dense and clay laminae are		i	J=9		Ì.
	· ·		stiff. Occasional laminae					ŀ
			of peat, "lignite" occurs			ļ		F
			in the samples.	ļ				Þ
			In the samples,	•				E
	45							┞
	4.5			l	!	J-10		Г
						<del>- 3 - 19</del>		t
	-							H
				'	1	1		F
	=				l			Þ
	50							Ŀ
	30				ļ	J-11		F
					i i			F
					}	•		E
	-							$\vdash$
	-7	774						F
	55		SC - Grey to dark green,					L
	1		coarse, glauconitic, sand,			J-12		t
	l –{		some shell frags., inter-					H
			bedded with clay, green,					F
	. }		fat, stiff, "CH".					F
	}	779						Ŀ
	30 <del>-</del>	///						F
	1	///						F
i			I					F
	}							F
	-							-
	] =	1/1	66.0 70.0 11:					F
	65	175	-66.0 - 70.0 silty			J-14		F
1		15/5	glauconitic sand			<del>  </del>		ţ-
								1
	1							F
i	i i					l		-
	70.	1/1			L			ŀ
!	70		CONTINUED ON SHEET 3					F
	-	1			ĺĺ			F
		1				1		F
							100	
		- 1				1	109	ŀ

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KILLING	LOG	(Cont :	Sheet)	ELEVATION TO	1'	••			Ho	le No. 56
COSECT C	Cooper	River	Rediv	rersion		INSTALLATION				SHEET 3
		ouse Si				St. Ste			,	OF 6 SHEETS
ELEVATION		LEGEND			TION OF	MATERIALS	RECOV ERY	BOX OR	(D)	REMARKS cilling time, water loss, depth of ceathering etc., if significant)
	<u> </u>	111	<u></u>		d		e	- 1	ļ . ,	Note change scale a
	-	1//	na-	rk areas	1 616	, fat stiff	!	15	J-15	
	-	///	To DE	TW Breef	cray	, aut SLIFE	1	1	13.13	1
	-	1//	+				i	1		1
	_		1				i	1 +	!	
_22 0	72 —	1///	1			-				1
-23.9	'	1/1/9	C=-	v. oren	n cla-	vev sand	1		; i	1
	1 3	<b>YYY</b> ,				yey s <b>a</b> nd, lauconite	i	:	ŀ	ļ
		1,55	and	shell		ents, very		;	: (	
	! -	1969		ıse.	~	,		1	. i	
<b>-25.</b> 9	-	1//4	1						· i	(
	74 —	10/00	+					, 	+	Pu11 1
	1 .	<u> </u>		A	~-	am. 111	100		:	74.0'to 74.7'
		4	San	us cone,	grey,	, argillaceo	1	٠ .		Run 0.7
		7				taining shel well-cement			· _ }	Rec 0.7
	75.6-	1	h hor	derline	clard	well-cement ey s <b>a</b> ndstone	وعاوا	į (	₩-1	Pu11 2
-27.5	76 -	1 <u></u>	or	sandy c	lavero	oue. Σποπαατομε	i .	. !	1	74.7'to 77.7'
-1.5		<del> </del>			ا به در	-	ļ	( )		Run 3.0'
	-	1					<u>.</u>		i	Rec 3.0'
	-	<del>-</del>				ue grey to	1	1	!	
	-	1	bla	ck. San	n <b>d</b> y sh	hale, soft	į,	i J	1	
		1===	con	solidat	ed dis	splaying som	e	1	<b></b>	ļ
	78 —	1 <del></del> -				tains numero		ļ ;	<u> </u>	D. 11 2
	1 -	<u> </u>	108	u casts	ot 58	and, as well	as	! !	· \	Pull 3
	-	<del> </del>	min	OF WINOU!	uc OI	shell fragm	ents.	( ;	W-2	77.7'to 80.7' Run 3.0'
	-						100		1	Rec 3.0'
	, =	1	77.	7 to 80.	.7' so	oft to very	1	1		
	80	1	sof	t arenad	ceous	material.		l i		
	. <u> </u>	1					i		¹	1
	-							L		1 <del></del>
		<u>  = - = </u>	61	7 . 00 .	: 1	.a	1	! j		Dark 1 1
	-	<del> </del>	gl.	/ <del>-</del> 82.	S <b>a</b> r	ndstone seam	1	i	₩-3	Pull 4
		<del> </del>	į				j 1		3	80.7'to 83.7'
:	82	- <u></u> -	į				100	ļ j	' J	Run 3.0' Rec 3.0'
	-		•				MC	ļ į		VEC 3.0.
	-	<u></u> _	]				30.0%	۱ ۱		· \
i		<u> </u>	83.	7' - Dis	spl <b>a</b> ys	m <b>assi</b> ve		i i	- 1	,
į	_	T	bed	ding.	-	•		ł į	· L	<u> </u>
	84 -		7					!	ſ	Pull 5
	-	[ <u>_</u> _	7 1 of	:1			100	: '	{	83.7' to 84.5'
				5' - fis			1	. '		Run 0.8' Rec 0.8'
				eloped a reg <b>atio</b> r			;	:	10-4	1
			seg	. eg#C10t	· br <b>a</b> u	100.	100	1	W-4	
								•	1	
	86 -		CA	MILINUED	0N SH	IEEL 4				
		1	1	PARTICELY.	on of				İ	i
		<u>.</u>						i	1	i
4	i I	1 .							ĺ	1
l •		1					( )		1	(10)
1	l	1,	٠				1			

ILLING	LOG	(Cont Sh	neet) Editation for A Hour			Но	le No. 56
iec C	ooper	River R	ediversion Hallation				SHE! 4
	·		St. Step				REMARKS
VATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS  Description	RECOV	SAMPLE	. D+	dling time water and degree
		1	d d	ERY	NO	4.	eathering the at agradients
.1	, h	· ·	d	•			•
			Shale, dark bue grey to blac	ık	Pox	V-6	Pull ó
			Soft, displays massive beddi		2	W	89.5'to 88.9'
	**		conchoidal fracture, slight	07	_		Run 4.4'
			fissility.			_	Rec 4.4'
	88			100			
	5.5						
	1						
	i				-		n 41 a
	1	d=		•			Pull 7
41.5	89.6	, 1		•			FM 88.9'to 92.5'
	90 -	+ <del></del>	Limestone "Coquina", creamy		Pass		Rec 3.6
		<del></del>	coarse angular shell frag-		Вэ <b>х</b> 3	w->	J. U
			ments, slightly imbricate,	100	,		
			within a glauconitic carbona				u.
			quartz sand matrix. Rock	_			
	. دو		moderately hard.			<b>∵-</b> 6	
	9						
					-		Pull 8
						<b>1 −</b> 7	FM 92.5' to 96.1
		<del>L - L</del>					Run 3.6'
							Rec 3.6'
	94	++++		100			
				100			
						₩ <b>-8</b>	
		i Total			1		
		7			Box		
	96	<del></del>	Soft rock not well cemented		4		
	30		96.1 - 96.7'		-		D. 11 0
		++++					Pull 9
			Broken soft rock of shell				FM 96.1'to 98.6' Run 2.5'
			rubble in clay silt matrix 96.7-96.9	100			Rec 2.5'
			70.7-70.7				• • • • •
	98 -						
		1	98.6'-101.6' shell rubble		_		
			and glaucomitic sand, soft				Pull 10
			poor rock				FM 98.6' to 101.6
			•	• ~ =			Run 3.0'
	100			100			Rec 3.0'
	2.70	ोच चार			$^{\mathrm{p}}$ ox		
						₩-9	
		<del>-</del>	CONTINUED ON SHEET 5	-			
		!	COMPRED OF SHELL 3				,
		+					
	102	•					
		:					
		•					111
		•					14

RILLING	LOG	(Cont S	heet) ELEVATION TOP OF HOLE			Н	ole No. 56
OIECT	. D. J	0	INSTALLATION				SHEET 3
Сооре	EL KIVE	er Kedi	version St. Stepher		LEON OF	•	OF D SHEETS
LEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS Observation	RECOV	SAMPLE		enting time water loss depth of
4	ь	: (	ď	ERY	1	•	eesthering ato if significants.  R
	•	H - F.	· · · · · · · · · · · · · · · · · · ·	•	•	•	
		<u> </u>	Limestone, grey	100	-	W-9	Pull 10 Continued
			<b>Sand,</b> grey to prown, calcared	<b>1</b> u 5			Pu <b>11</b> 11
		1 - I -	grey₃marl. Loose.			w-10	101.6' to 104.6'
		<u> </u>	Limestone, grey, "coquina"	-			Run 3.0'
	103	- <del></del>	mod. hard. vuggy, sound	100	эχ		Rec 3.0'
		! !	rock.		5		
	104	,					
						.:-11	
	104.6		Sand, creamy grey, calcareous		•		
<b>-56.</b> 9	105		Ifine grain	•			rull 12
		1		-		W=12	
<b>-5</b> 7.9	106		Linestone "Coquina" - creams grev, moderately hand	1		·	Run <b>3.0'</b> Rec <b>3.</b> 0'
-3. •3	100		J grey, moderatery hand	1			wec 3.0
			Sandstone, creamy grey.	<b>.</b> 100	:		
	107		Sandstone, creamy grey, calcareous, well cemented,			W <b>-1</b> 3	
-59.1	107.2		noderately hard.			·	
				•	-		Pull 13
	108		Sand, green glauconitic		Вох		107.6' to 110.9'
			fine grain, argillaceous		6	5-14	l
			quartz sand, subangular		,		Rec 2.6'
	109		dense.	78.7			Loss 0.7'
		4		10.7		<del></del>	
	110					$\setminus$	
						Χ	
					١	$\angle \Delta$	
	111	1					Pu11 14
				1 1 1 1 1		ı	110.9' to 112.3'
	112	; !!!!!!!!!		100		D <b>-15</b>	
-64.4	112.5	ļ			-		Rec 1.4'
-			Limestone "Coquina", creamy	•			D 11 15
	113		grey, shell rubble cemented				Pull 15 112.3' to 114.8'
			in a sand-calcareous matrix,				Run 2.5'
	114		hard, grades to borderline.	100		W-1	N 2 E1
	114		Sandy limestone to a				
-66.7	114.8		calcareous sandstone.		Box		
-00./	114.6	777	7		7		
	117	; <b>† ] † ]</b>		•		₩-1	Pull 16 114.8' to 117.
	117	: <b>  ]   ]</b>	Sand, silty sand, dreen				Run 2.5'
]	116	; <b>† ] † [</b>	calcareous	100			Rec 2.51
		! <b>  I   I</b>				W-18	•
		<u>: • T • T</u>					
	117	•	CONTINUED ON SHEET 6				
		•					
							1.0
		•					112
		•					1

I

	(Cont S	heet) 48,11		. =	Hole No. 56
Cooper Riv		PIZ ALLATICIN	phens,	S.C.	SMEET 6
EVATION DEPTH		CLASSIFICATION OF MATERIALS	. CORE	IBOX OR	REMARKS (Dolling time water le depor a weathering etc. if sometime)
. , h		d SM, sand, silty sand, green	100	. ' .	Scale change at 117
		calcareous		3 <b>0x</b> 7	Pull 17 117.3'to 118.6' Run 1.3'
<b>-</b> 69 <b>.</b> 9 118		Sandstone, argillaceous	00		Rec 1.3'
-70.5 118.6	5		-	<del>, , , , , , , , , , , , , , , , , , , </del>	
119 -	-1	Bottom of hole 118.6'			
	:				
	!			:	
-	•				
	1			3	
				1 .	
	1				
-			1		
	. <b></b> .			!	
	1				
T.	_			Ì	
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	'				
				i	
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	1		1	·	
	1				
	_			•	
	;				
	; ;				
	•				
	!				113
					いう

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Hole No. 57

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								Hole No.	57	
DRILL	ING LOC		VISION	INSTALL		0 /	,		SHEET 1	
PROJECT			South Atlantic		Stephe AND TYPE			" Core Bi		
Cooper	River	Redive	ersion					(TBM or muse		
Cooper LOCATION		tes or Sta	tion)		SL	-D-C				
Sta. 59 DRILLING	AGENCY			12 MANUFACTURER'S DESIGNATION OF DRILL  CME-75						
Savanna				13 TOTAL NO. OF OVER- OPERURBED UNDISTURBED BURDEN SAMPLES TAKEN						
and lite num	nber)	on drawn	ng title: 57				23	- Jar	17 - Wax	
NAME OF D					AL NUMBE			10		
T. W.				15. ELE	VATION GE		ATER	+50.3	MPLETED	
			DEG. FROM VERT.	16 DAT	E HOLE		3-10-		-21-75	
THICKNESS				17. ELE	VATION TO	POFHO	LE +5	0.3'	-	
DEPTH DRI				L	AL CORE F			BORING 84	7'. •	
TOTAL DE			75,5' 150 <b>.</b> 5'	1	ATURE OF		TOR	-	Cooleatet	
- · ·	· ·	!	CLASSIFICATION OF MATER:	<del></del>	arles (		1	REMA	Geologist RKS	
d d	DEPTH	EGEND	(Description)	465	CORE RECOV- FRY	SAMPL S NO f	(Dril	ling time, wat-	or loss, depth of if significant	
	-									
!	$\exists$		page of the contract of		į			J = lar	•	
,	- =	i	FILL MATERIAL					B = Bag		
:	$\exists$	į	<pre>(Dry compacted fill of support drill rig)</pre>	sec to		İ		w = Wax	ed S <b>a</b> mple	
48.3	2		support drift fig)							
	- <u>-</u>							-	2.0 to 12.0	
	=======================================		CL - Tan Silty Clay,					Pull 1		
1			some organic material		İ			2.0 to		
	$\exists$				İ			Run 4. Rec 4.	Ŋ'	
	<u>,  </u>						B-1			
i	<b>_</b>				100					
	$\exists$									
					1			1		
1	-									
1	6					}	J-1			
43.8	6 5					1		Pu11 2		
73.0		///	,		[				o 11.0'	
1			CH - Dark Gray Clay,	with				Run 5.		
			Sand (SM) Pockets.		}			Rec 5.	0'	
1	8 —		· •				,, ,		LASSIFICATION	
	ĭ ±		, 1		100		B-2	ELEV.		
!	Ⅎ		•					39.3-48		
1			•					39.5-44 15.0-17		
	$\exists$		•	-					17.1) SP-SM	
İ	10		•		{			-14.8-(-	-22,0) SM	
			•		140			-10.7-(	-14. <b>2</b> )SC	
i	∃		•		MC 18.4%		1-2			
İ	11		CONTINUED ON SHEET 2		10.7	†	-	<del> </del>		
	$\exists$	į	CONTINUED ON SHIP 2							
		:				i I		1		
i I			NOTE: Soils field class							
	7	ļ	in accordance with the		i					
	-7	ļ	Soil Classics watten	, r · · · .					_	
	7								ml	
					i	1	1	i	rT	

RILLING LOG	(Cont	Sheet)	#50.31		_ , Ho	ole No. 57
EVATION DEPTH		<b></b>	CLASSIFICATION OF MATERIALS Description	% CORE IBO RECOV   SA ERI !	X OR: MPLE - !?	REMARKS  THE THE THE THE THE THE THE THE THE THE
11.8	111	CH-	d dark gray clay with sand pockets	MC 11.9% 100	B-3 J-3	Pull 3, 11.0' to 12, Run 1.0' Rec 1.0'
13		SP -	Gray Sand, Non-comente	ed		4 x 5½ 12.0'to 14.5" Pull 4 12.0' to 15.0 Run 3.0'
				0.0		Rec 0.0'
35.1 15.2		CL-G	ray Silty Clay with (SM) Lenses		<b></b>	Pull 5 15.0' to 18. Run 3.0' Rec 3.0
ŧ 7				100	.3 <b>-</b> 4	
31.8 18.5			Gray clay, plastic, Sand (SM) Seams.		.1-4	Pull 6 18.0' to 21.0' Run 3.0'
29.8 20		WICH	Salla (S.I.) Scalits,	100	6-5	Rec 3.0'
20 <b>.5</b> 21		Sm -	Grey, silty sand, with clay layers. Dense		J <b>-</b> 5	Fishteil
		)	material	0.0	<del></del>	Pu11 /
23				100	5 <b>-</b> 6	22.0' to ab.d' Eun 3.0' Rec 3.0'
. 4		•				Pull 8
		•		100	.1-7	25.0'to 26.5' Run 1.5' Rec 1.5'
27		CON	EINUED ON SHEET 3			See Sheet 3
	* i					115

KILLING	roe (	Cont S	heet) ELEVATION TOP OF HOLF		Н	ole No. 57
овст С <b>оор</b> е	r River	Rediv	version St.	Stephens, S. C.		SHEET3 OF 10 SHEETS
LEVATION	1	LEGEND	CLASSIFICATION OF MATERIALS	** CORE BOX C	OR. LE <i>ID</i>	REMARKS ordling time, water loss depth of acathering etc. If significant)
•	b		SM- gray silty sand wit clay layers	100 ;	B-7	Pull 9 26.5' to 29.5' Run 3.0' Rec 3.0'
	29				J <b>-8</b>	
	51 -			100	B-8	Pull 10 29.5' to 32.5' Run 3.0' Rec 3.0'
	į			1	1-9	
17.3	33		CH - Gray Clay, Calcared Loose Shells.	ous, MC 47.3%	<b>B-</b> 9	Pull 11 32.5' to 35.5' Run 3.0' Rec 3.0'
				100		
15.3	35		BP - Dark Gray Sand, Sat		J-10	
	37 -		Micaceous, contains some silty sand laminae "SM"	MC 77.0%	B-10	Pull 12 35.5' to 38.5' Run 3.0' Rec 3.0'
					J-11	
	39			0.0		Full 13 38.5' to 41.5' Run 3.0' Rec 0.0' CL 3.0'
	41				J-1	2 ∪enison 41 <b>.5'</b>
				0.0		Pull 14 41.5' to 43.5' Run 2.0' Rec 0.0'
	43		CONTINUED ON SHEET 4			
		1				116

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St. Stephens, S. C.   St. Stephens   St. St. St. St. St. St. St. St. St. St.	RILLING	LOG	(Cont	Sheet) '''	VATION T PIOF HOLE +50.31			Но	le No. 57
Continued on Sheet 5   Continued on Street 5   Conti	•				INSTALLATION	tenhens	s. c		5m+4
P - Dark Gray, Sand	poper R	iver	RedIve						
See Sheet 3   Pull 15   43.5 to 46.0   Run 2.5   Rec 0.0	EFEVATION	DEBIH	LEGEND	C		RECOV	SAMPI	$(\mathbf{F} = iD)$	edding time water a great
Micaceous, water saturated, contains some silt-sand laminae "SM"  3.0  45  47  0.0  48  49  0.0  49  0.0  48.5 to 48.5 to 48.5 to 51.0 to 60.0 to 2.5 to 51.0 to 53.2 to 55.0 to 53.2 to 55.0 to 55.8 to 57.8 to 57.8 to 59.8 to 59.8		Ь						•	
Micaceous, water saturated, contains some silt-sand laminae "SM"  3.0  45  47  0.0  48  49  0.0  49  0.0  48.5 to 48.5 to 48.5 to 51.0 to 60.0 to 2.5 to 51.0 to 53.2 to 55.0 to 53.2 to 55.0 to 55.8 to 57.8 to 57.8 to 59.8 to 59.8						. 0 0			See Sheet 3
Contains some silt-sand   1aminae "SM"   3.0     43.5' to 46.0'			1	9°	Dark Gray, Sand		-	\	
1aminae "SM"  3.0  Run 2.5' Rec 0.0' CL 2.5'  Pull 16 46.0' to 48.5' Run 2.5' Rec 0.0' CL 2.5'  Pull 17 48.5' to 51.0' Run 2.5' Rec 0.0' CL 2.5'  Pull 17 48.5' to 51.0' Run 2.5' Rec 0.0' CL 2.5'  1				Micac	ine some silt-sand	٠,		1 1	
55  57  58  59  60  60  70  70  70  70  70  70  70  70			<b>!</b>						143.5' to 46.0'
CL 2.5'  Pull 16 46.0' to 48.5' Run 2.5' Rec 0.0' CL 2.5'  Pull 17 48.5' to 51.0' Run 2.5' Rec 0.0' CL 2.5'  Pull 17 50  Pull 10 ll 10 50 50 50  Pull 10 50 50 50  Pull 10 50 50 50 50  Pull 10 50 50 50 50 50 50 50 50 50 50 50 50 50		/. c	<b>!</b>			J.0		1	
0.0		٠+٠		:				\ /	
0.0								1/	
0.0    46.0' to 48.5'   Run 2.5'   Rec 0.0'   CL 2.5'     2.5'   Pull 17   48.5' to 51.0'   Run 2.5'   Rec 0.0'   CL 2.5'     51     3" to 3.0'   Spoon   140 " Harmer   Drive 1   51.0' to 53.2'     52     3   B = 2-13   I   Drive 2   53.2' to 55.0'     53   3   B = 2-13   I   Drive 3   55.0' to 55.8'     54   Drive 4   55.8' to 51.8'     55   Drive 5   57.8' to 59.5'     57   CONTINUED ON SHEET 5						· · · · · · · · · · · · · · · · · · ·	-	1/	
0.0   Run 2.5   Rec 0.0   Ct. 2.5    49   0.0   Pull 17   48.5   to 51.0   Run 2.5   Rec 0.0   Ct. 2.5    51   3" to 3.0   250   Run 2.5								W	
0.0   Rec 0.0'   CL 2.5'				:				V	
CL 2.5'  Pull 17 48.5' to 51.0' Run 2.5' Rec 0.0' CL 2.5'  51  3" to 3.0' Spoon 140 " Hammer Drive 1 51.0' to 53.2' 15 55.0' to 53.2'  3-14  J-15  57  B- 13  I Drive 2 53.2'to 55.0'  Drive 4 55.8' to 57.8'  Drive 5 57.8'to 59.5'  CONTINUED ON SHEET 5		<del>.</del> 47		:		n n		Į.	
73  51  0.0  Pull 17  48.5' to 51.0' Run 2.5' Rec 0.0' CL 2.5'  51  3" to 3.0' Spoon 140 * Hanmer Drive 1 51.0' to 53.2' 53.2'to 55.0'  3-14  55.0' to 55.8'  0rive 4 55.8' to 57.8'  57  CONTINUED ON SHEET 5						0.0		$I_{+}^{\alpha}$	
48.5' to 51.0' Run 2.5' Rec 0.0' CL 2.5'  3" to 3.0' Spoon 140 = Hammer Drive 1 51.0' to 53.2' 11				:				= 11	
48.5' to 51.0' Run 2.5' Rec 0.0' CL 2.5'  3" to 3.0' Spoon 140 = Hammer Drive 1 51.0' to 53.2'  11				:			-	/ \	
51  51  3" to 3.0" Run 2.5' Rec 0.0" CL 2.5'  81  3" to 3.0" Spoon 140 = Hanmer Drive 1 51.0' to 53.2' 53.2'to 55.0'  55.0' to 55.8'  57  6-12  J-16  Drive 5 57.8'to 59.5'  59  COMTINUED ON SHEET 5		1.0	1					1 1	
51    Rec 0.0'   CL 2.5'     3" to 3.0'   Spoon   140 = Hammer Drive 1     51.0' to 53.2'     52		49							
51    CL 2.5'     S1			,	:		0.0		1 1	
51  3" to 3.0" Spoon 140 ** Hammer Drive 1 51.0' to 53.2' 53.2' to 55.0'  3-14  55  3-14  57  58  3" to 3.0" Spoon 140 ** Hammer Drive 1 51.0' to 53.2' 53.2' to 55.0'  3-14  55.0' to 55.8'  Drive 3 55.0' to 55.8'  Drive 4 55.8' to 57.8'  B*- 12  J-16  Drive 5 57.8' to 59.5'  57			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	:		0.0		1	
3" to 3.0" Spoon 140 " Hammer Drive 1 51.0' to 53.2'  B- 2-13  B- 2-13  Drive 2 53.2'to 55.0'  3-14  55.0' to 55.8'  Drive 4 55.8' to 57.8'  Drive 5 57.8'to 59.8'			,	:					
3" to 3.0" Spoon 140 " Hammer Drive 1 51.0' to 53.2'  B- 2-13  B- 2-13  Drive 2 53.2'to 55.0'  3-14  55.0' to 55.8'  Drive 4 55.8' to 57.8'  Drive 5 57.8'to 59.8'		5.1		:					Blows
140 = Mammer Drive 1 51.0' to 53.2' to 53.2' to 53.2' to 53.2' to 55.0'    B- 13	•	J1 .	***************************************				1		3" to 3.0'
53  B- 13  Brive 1 51.0' to 53.2'  B- 13  Brive 2 53.2'to 55.0'  3-14  55.0' to 55.8   Drive 3 55.0' to 55.8   Drive 4 55.8' to 57.8'  B- 12  J-16  Drive 5 57.8'to 59.8'  CONTINUED ON SHEET 5									
51.0' to 53.2'  B13				•					
B13							.		51 0! to 53 0!
55  3-14  55.0'  57  58  59  60  50  50  50  50  50  50  50  50  50		. )				1			60
53.2'to 55.0'  3-14  prive 3 55.0' to 55.8]  Drive 4 55.8' to 57.8'  B- 12  J-16  Drive 5 57.8'to 59.8'  COMMINUED ON SHEET 5		, 5	1			:	1		100
55    J-14     Drive 3     55.0' to 55.8    Drive 4     55.8' to 57.8'   Drive 5     57.8' to 59.8'   COMPINED ON SHEET 5						1	. 1		
55    Frive 3									27
55    Frive 3			31,						
57 J-16 Drive 3 55.0' to 55.8]  B-12 J-16 Drive 5 57.8' to 57.8' to 59.8'  COMPINUED ON SHEET 5		2.6						3-14	<u>;</u>
Drive 4 55.8' to 57.8'  B- 12 J-16  Drive 5 57.8'to 59.8'  COMPINUED ON SHEET 5		ٔ در							In Eve 3
57 B- 12 J-16  Drive 5 57.8'to 57.8'  CONTINUED ON SHEET 5			{	•				J=15	55.0' to 55.8 <sub>100</sub>
55.8' to 57.8'  B- 12  J-16  Brive 5 57.8'to 59.8'  CONTINUED ON SHEET 5			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•					Drive 4
J-16 Drive 5 57.8'to 59.8'  CONTINUED ON SHEET 5									55.8' to 57.8'
J-16 Drive 5 57.8'to 59.8'  CONTINUED ON SHEET 5		57							50
J-16  Drive 5 57.8'to 59.8'  CONTINUED ON SHEET 5		-		•		i			
Drive 5 57.8'to 59.8'  CONTINUED ON SHEET 5				:		1	112	J-16	(00)
CONTINUED ON SHEET 5				:					
CONTINUED ON SHEET 5				•					
CONTINUED ON SHEET 5		59	1111111111	j			_  _		<u></u>
117		,,		COMPI	WUED ON SHEET 5				
117			•						
			•						
									117
·			:						

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KILLING	LOG	(Cont S	heet) ELEVATION TOP OF HOLE +50,31			Hole No. 57
PROJECT	D.4		INSTALLATION SEE SEADI	come C		isher 5
cooper	vive	r Rediv				TO SHEETS
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	1 CORE	BOX OF: SAMPLE	REMARKS  Decisions lines writer or depending
			Descripto n	' ERY		Gentletta. E. H. Serit and
+	<u>b</u> .	<u> </u>	. d	· ·	, ·	1
			SP, dark grey, continued			See Sheet 4
			or, dork grey, concrudes		}	-17 4 x 5
		777			12	-18 Drive 6 10
		9//			l	Pull 18
			Sand, dark gray, micaceous			60.0' to 61.5'
	61	///	interbedded with clay	100 _		Run 1.5'
		////	laminae and some gravel			-19 Rec 1.5'
		////	laminae			Pall 19
		////	3P, Ju,			61.5' to 64.5'
				MC	3-	Eun 3.0'
	6.3	///.		33.6%	1.3	Sec 3.0'
	53	///		100	1	
	_	////			į	
		////		•	!	1
		////			, ,	-24
	_	////			<del> </del>	<u></u>
	65 -	///.				Pull 20
	05					64.5' to <b>6</b> 7.5'
		////				Run 3.0'
		////		100	-	14   Rec 3.0'
		////		±00		
		////				
	67					
	-	///,			,J	-21
	1	////				Pull 21
		////			/	/ 67.5' to 70.5'
	*	////			/	/ Run 3.0'
	-	1///			/	/   Rec 0.0'
	69	///.		0.0	)	(   CL 3.0'
	4	7//.			/	
		///			/	
	i	////			/	V
	4	////				
	71	///				Pull 22
	<b>i</b>					70.5' to /3.5'
	1	////			İ	Run 3.0
	•	////				Rec 3.0'
		[/./.]		100	В-	
	;				15	
	73	///.				
		///	Calcareous, interbedded with some clay scame.		1	<u>-22</u>
		///,	True being Clar by and.		1	Full '3
	,	////				73.5' to 75.0'
	;			100		Brun 1.5'
14.7	75	/ / / /	top of look The		1	(3)
	75		COTTING ON SELE 6		• •	
	•		Service Servic			
	:					118
						1.0
				4	1	I

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DRILLING	LOG	(Cont	Sheet)	ELEVATION TOP OF H +50	.3'			Н	ole No.	57	
PROME					INSTALLATION					SHEET 6	_
Cooper	River	Rediv	ersion	ı	St. Ste	phens,	S. C.			OF 10SHEETS	
ELEVATION		LEGEND		CLASSIFICATION (	OF MATERIALS	% CORE	BOX OR	$\frac{1}{2}$ (D)	REMA	RKS ter loss depth of	
	ь			d	,	ERY	NO	1	u eathering, etc. R		
•			· Cmarr	Sandstone,	Dongo	1	1	+	†		-
	75 6	1	: Calc	areous		1	ļ		Pull 24	70.01	
	75.6		Gray	Sandstone,	Gray Shale,	7		1	75.0' to		
		<u> </u>	Inte	rmitt <b>a</b> nt, D	ense		-		Run 3.0		
		1	1	•		100	1		Rec 3.0		
		1:				1	į		]		
	77	<del> </del>	<del> </del>			┪	i		1		
!		]	Dark	Gray Shale	Dense,	1	i i		ŀ		
i					htly Calcared	us,		W-1			
;			Fiss	le Bedded.		-	Box	-	<del></del>		_
			. [			-	1		Pu11 25		
			İ			1	1	:	78.0' to	- 01 01	
	79 -		1			87			Run 3.0		
			-1			: 07	i		Rec 2.6		
						•			C1 0.4		
							i		0.4		
			. ;				:	:			
		1					1				
	81		7				4		7.11.26		
	-	1							Pull 26	0/ 01	
		i				}			81.0' to		
		<del> </del>	<b></b>			-			Run 3.0		
		<del></del>	. '			1		•	Rec 2.8	•	
			-			93	!	I .	CL 0.2'		
	83		•								
			7			1	!	:			
			i			I	i		l		
		1	1			·		ŀ	L		_
			.1			i	Box		Pu11 2		
			-				2	!		to 87.0'	
	85	1_=_	1			:	1		Run 3.0		
		j	.)			1	i	•	Rec 1.		
						40		1	CL 1.8	8 <b>'</b>	
	-	1	1			ļ	ļ	W-2			
			1			ļ			Ì		
			•:				t .		1		
	87	<b>∤</b> _	1			<del></del>	-		<u> </u>		
		<u> </u>	1	-3 Blended	classifies	MC			Pu11 28	8	
			as	MH		60.0%	:	W-3	87.0'	to 90.01	
			·†					<del></del>	Run 3.0	0'	
			-						Rec 5.		
		<b>-</b>	1			167		1	CG 2.0		
	89		 \./A.V	4 Blended	classifics	MC	Box	<del></del>	1		
	09			14 biended 14-CH	C105511165	64.0%		W-4			
5			. as r	m-cn				-			
	90	<u></u>	<u> </u>			1	· 				
•			COMIL	NUED ON SHI	EET 7	: -					_
		1		011 0111							
		j	:						1		
	-	1	I						1		
		1									
		}							1		
		1	i						l	119	
		1	:							147	
		]	i					1	1	. ,	
			4						•		

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RILLING	LOG (Con	nt Sh	+50,3	ne I			_Но	le No.	57	_]
OJECT	per River			St. Steph	ens. S.	C.			SHEET 7 OF 10 SHEETS	7
			CLASSIFICATION OF	<del></del>	% CORE	BOX OR			ARKS	┪
ELEVATION	DEPTH LEGE	ND	( Description		RECOV- ERY	SAMPLE NO.			ater loss, depth of , if significant)	1
<del>.</del>	b c	+	<u>d</u>		, e	f		·	<u> </u>	4
40.3	90.6		Shale, dark gre	y, continued	1			Pull 29	9 :o 93.0'	I
40.3	-		Gray Limestone		7			Run 3.0		I
	-		Argillaceous,	Fossiliferou	s			Rec 0.6		I
			Gray Limestone	. Argilla-	20			CL 2.4	<b>,</b> '	ł
40.7	92	<del>-</del>	ceous, Soft, w			1				l
	1	<u></u>	Shells			1				ŀ
										4
		<del>_</del>	Gray Limestone	, Dense,				Pu11 30	0	ļ
	1 , 1	-	Fosciliferous			Box			96.01	1
43.7	94	+	Gray Limestone	soft,	93	3	W-5	Run 3.0		ŀ
	++-	_	Argillaceous,			1		Rec 2.1		ŀ
	; - +							CL 0.	-	ŀ
	T									ł
<b>45.</b> 7	96									┛
43.7			Gray Limestone	, h <b>ard</b> ,				Pull 3	1	ŀ
	1	口	Fossiliferous						99.01	İ
	-1-1					1		Run 3.		Ì
	1	7			123			Rec 3.		I
	98					I i			•	ŀ
	-					}	, ,	ŧ		I
		$\Rightarrow$			L	]				╛
								Pul l	32	1
						1	W-6		to 102,0'	ı
	100	щ						Run 3 Rec 3		ı
	1	耳			100			Rec 3	•0	
	-	口				Вож				1
						4		•		ŀ
	J.,, -	$\neg$				]				
	102							Pul1	33	
	1 1							102.0	' to 105.0'	ł
						j :		Run 3	.0'	l
	#	工		•	100		,,_,	Rec 3	.01	İ
	104						W=7			ļ
		耳								I
										J
					100	Вох		Pu11 3	4 105.0' to	٦
		#			100	5		108.0'   Rec 3.	0'Run 3.0'	1
	106	4	CONTINUED ON SH	EET 8		-			<del>-</del>	-
										l
										ļ
	=				}				120	1
	1 📑				1	1			1 AU	Ţ

MEST.	100	(Cont S	Sheet) ELEVATION TOP OF HOLE +50.3			Но	le No. 57
Cooper			ersion St. Steph	iens,	s.c.		SHEET 8
EVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Disciplion)		BOX OF	· Dr	REMARKS  Illing time water I down it eathering etc. It ignificants
4	ь 106 <b>-</b>	士	d  Limestone, hard, continued	:	, t		Pull 34 Con't
	106.7		SM - Gray Sand, Dense, Shell Fragments, Calcareous, Micaceous	100		W-8	ı
	108 -		· · · · ·	1,111,111,111	В <b>ох</b> 5	W-9	Pull 35 108.0' to 111.0' Run 3.0' Rec 3.5'
1	110 · ·-		•	116		W-9	cg 0.5'
51.7	- 112 -					}	Pull 36 111:0'to 115.0' Run 4.0' Rec 3.7'
			Gray Limestone, Dense, Fossiliferous, well consolidated	93			<b>CL</b> 0.3'
	114 114.7		:	_	В <b>ох</b> 6	W-10	
1	115		Gray Sand, Argillaceous, Calcareous		<del>-</del> ,		Pm11 37
55.3 1	115.6 116		Gray Limestone, Dense, Fossiliferous	83	•	W-11	115.0' to 118.0' Run 3.0' Rec 2.5' CL 0.5'
	117 <b>.1</b>		SM - Gray Sand, Shell Fragments, Calcareous	-			
			!			W-12	Pull 38 118.0' to 121.0' Run 3.0'
	120	1+1+	Limestone Seam - 119.3' to 119.7' SM - Gray Sand, Shell Fragments, Calcareous	100	B <b>ox</b> 7		Rec 3.0'
			SM- Gray Sand, Shell Fragments, Calcareous	83	-		Pull 39 121.0' to 124.0' Ran 3.0'

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RILLING LOG (Cont S	theet) ELEVATION TOP OF HOLE +50.3			Но	le No.	<b>5</b> 7	
DIECT	INSTALLATION					SHEET 9	•
Cooper River Red	version St. St.					OF 1 QUEETS	
EVATION DEPTH LEGEND	CLASSIFICATION OF MATERIALS (Description)	RECOV	BOX OR SAMPLE NO	$(D_t$	illing time.	MARKS Later loss, depth of Lift significant)	
	SM- Gray sand, shell frag ments, calcareous	°.	<u>†</u> . <u>†</u> .	• :	Pull 3 Rec 2. CL 0.5		
124	· ·	33					
124.8	Gray Sandy Limestone, Dense,		B <b>o</b> x 7		Pull 4 124.0	to 127.0'	
126	Fossiliferous	77		: .	Rec 2.	31	
			: • • • • • • • • • • • • • • • • • • •				
128		100		w-13	Pull 4 127.0 Run 3 Rec 3 CG 0	' to 130.0' .0' .7'	
	Gray Shell Limestone, Low Consolidation, soft, some sand lenses.	123	Boss		CG U	• /	
130			8 8		Run 3	' to 133.0' .0'	ı
132	Dense Calcareous Sandstone	97			Rec 2 CL 0		
	Shell Limestone, Gray, Low Consolidation, soft, some sand lenses.						
134		47			Pull 133.0 Run 3 Rec 1 CL 1	' to 136.0 .0'	
136	Sandstone, Dense Calcareous			:	Puil	44	
	Shell Limestone, gray Low Consolidation, soft, some sand lenses.	110	Box 9	W-14		to 139.0 .0' .3'	•
138	CONTINUED ON SHEET 10						
;			· .			122	

G

KILLING	LOG	(Cont 3	theet) ELEVATION TOP OF HOLE +50.31			Ho	ole No. 57
RC/Es*			INSTALLATION				SHEET 10
Cooper	r Rive	r Rediv	ersion St. Steph			·	TOLIO SHEETS
ELEVATION	DEPTH h	LEGEND	CLASSIFICATION OF MATERIALS (Description) d		SAMPLE NO	iDi	REMARKS rilling time water ( ) depth ( ) leathering etc. If skirthlants
	. "			ļ e	: '		1
			Shell Limestone, gray, soft	110			Pull 44 See Sheet 9
		+		<del></del>	-		Full 45
							139.0'to 142.0'
	140	<del>                                     </del>	Sandstone, Dense Calcareous	-			Run 3.0' Rec 3.0'
			Shell Limestone, Gray,	100			Rec 3.0
			low consolidation, soft,			:	
			some sand lenses.  Sandstone, Dense Calcareous		3 <b>ox</b>		;
	142	111	Shell Limestone, Gray, low	+	•	:	D-11 //
		TI.	consolidation, soft, some	!		·	Pull 46 142.0' to 145.0'
			Sandstone Dense Calcareous	- 			Run 3.0'
			Sandstone, Dense Calcareous Shell Limestone, Tray, Low consolidation, Soft, Some sand lenses,	<b>5</b> 7	:		Rec 1.7' CL 1.3'
93.7	144	1929	sand lenses.	-J	J		
			SC - Sand, gray fine, dense	<b>.</b>	:		
	-		argillaceous, micaceous.	<u> </u>	<del> </del>	]	
	: -	777		i F			Pull 47 145.0' to 147.5'
	146			İ		W-15	Run 2.5'
	-	1,55		140			Rec 3.5' CG 1.0'
	i			140		, (	
	-				<u> </u>		
	148				B <b>o</b> %	]	Pull 48
					10	w-16	147.5' to 150.5' Run 3.0'
		777					Rec 3.5'
				116		W-17	CG 0.5'
.00.2	150-	1		1 			
• -	-	///					
	-		Bottom of Hole - 150.5'			ŀ	
	! -						
	152	1	•		i	ł	
						-	
1	-						
	-	1				Í	
	-	]					
: i	-					ļ	
						- 1	123
		1		1		- 1	1/4

E

			Hole No. 58 TINSTALLATION TSHEET I						
DRILL	LING LOG	DIVISION Atlantic	I 1	ATION Stephe	no 60		SHEET I		
PROJECT		South Atlantic	10. SIZE	AND TYPE	E OF BI	)/Ull ID 0.11			
	River Redi		11. DAT	IN FOR EL	EVATION	3/8" ID Spli SHOWN (TBM or MSL	Core Ri	r <del>axy</del> b	
Chat En	Coordinates of	or Station) 5.0 Ft. Left of Centerl	121/						
SERE 39	AGENCY	S.U FE. LETE OF CENTER!			ER'S DESI	GNATION OF DRILL			
Savannal	h District	<u> </u>	13. TOT	AL NO. OF	OVER-	XXXXXXXX	333330		
and file nu	(As shown (1) o unbes)	drawing title 58	<del></del>				31 Wax	ed	
S NAME OF	DRILLER					OXES 11			
I. W. S	Scott		15. ELE			TER 48.01	DMPLETED		
Y VERT		NED DEG FROM VI	ERT. 16 DATI	EHOLE	1.		23 Feb 7	5	
		RDEN 73.51	17. ELE	ATION TO	P OF HO	LE 48.01			
	RILLED INTO R					Y FOR BORING	9	93 ,	
	EPTH OF HOLE			ATURE OF					
	•	C ASSISTING AT LOW OF WAR		CORE	BOX OR	k Geologist	RKS	$\dashv$	
ELEVATION	DEPTH LEG	END Description	EUI-F3	RECOV-	SAMPLE	(Drilling time, wat weathering, etc.,	er loss, depti if significan	201	
•	b			• •	<u> </u>	<u>_</u>		Blow	
, , , ,		SC - Sand, Clayey,	Tan	]	1-1	W.T. Surface	e	8	
46.0	2.0	Fine Grain  CP - Gravel with Lau	ı Fine			DATE 20 Feb		E	
		Graver with lan Grain poorly		:		Depth to wate		—E	
		sand and pebble			J-2	during drill	ing	40	
	5.0	<b>7</b> /						E	
	\(\frac{1}{2}\sigma_{\sigma}\)				<u> </u>				
	//	<b>7</b> )			J-3	W.T. Artesi		6	
	79					Water Table : 24 hrs. af		E	
38.5	9.5					completed	ret dote		
	10	Sand, dark gree			J=4	7 gp.m flow		40	
		grey, fine gra bedded with lan			}			⊨	
		clay, silty to		1		V = 1 C-	1_		
		Also contains			J <b>-5</b>	J = Jar Samp	те	57_	
	15	lignite in the	sand			W = Waxed Sa	nple	⊨	
		layers					_		
					J-6	13/8" 1D Sp1		60_	
						at 3 foot in	tervals		
								<u>_</u>	
	20				J <del>-</del> 7			60	
								=	
				,	J <b>-</b> 8	,		5.2	
					1-0			56	
				1		1		E	
	25 -		. <del></del> -	<u> </u>	J-9			_39	
		CONTINUED ON SHEET	2					E	
	-							E	
	=====================================	NOTE: Soils field of	assified					E	
		in a wordance with t	he Unified	1				E	
		Lord Ciassification							
	: =	i						上	
	=					<b>a</b>	~*!	F	
						1.	24	F	
		1				•	7	F	
	-				1			$\vdash$	

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			eet) ELEVATION TOP OF HOLE 48.0"		Hole No. 58
IEC?	Coope	r Diver	Rediversion St. Stephe	ne SC	SHEET 2
	сооре	I KIVEL	CLASSIFICATION OF MATERIALS	% CORE BOX OR	REMARKS
EVATION	DEPTH	LEGEND	(Description)	RECOV SAMPLE	(Drilling time water lo defet of weathering et. if agrille BLOWS
	ь			e 1	BLOWS
25.5	· 25,5		Sand laminated with fat clay	· —	
			SC - Sand, green clayey, com-		
		1999	<pre>posed of glauconite= carbonate and quartz</pre>		_
		1999	grains with some shell	J-10	12
	00		fragments		
	<b>3</b> 0		11 abaction		<del></del>
		1999		J <b>-11</b>	1 <u>6</u>
		777			
	•			ļ <del></del>	•
14.0	34.0	7.7		J <b>-1</b> 2	20
	<b>3</b> 5		Sand, "SP" green, fine		
		///	grain, glauconitic inter	- -	
	-	///	bedded with silty clay	J-13	90
			and silt containing peat.	1-13	30
			peac.		
	40	///			
		///		J-14	100/.9
			:	1	
6.0	42.0	TI S	M - Sand, kelley green,		
		1 1 1 1 1	silty glauconitic, very	J <b>-1</b> 5	15
	,	1 1 1 1	fine grain		
	4 <b>5</b>	1 1 1 1		<del> </del>	<del>-</del>
		ŢĠŢĠŢ		J <b>-1</b> 6	16
		I   I			
		!∳I∳Ï		-	
1.5	49.5	<b>┆</b> ┡╏┡╏		J-17	17
	50 -	111	Sand, "SP" green, fine		****
			grain interbedded with		_
			clay, dark green, "CH".	J-18	100/.4
				J 25	· <del>-  </del>
	-				
	55				100/.7
	ر ر			J <b>-1</b> 9	100/./
	_				
				J-20	50
;			•		ŀ
	60 -			<del></del>	{
2 -	(			J-21	100/.2
3.5	61.5	I I I SE	Sand, silty green		1
'	-	<b>▋</b> ♦▋♦	glauconitic	<b>——</b>	
	64.5	I • I • I		J-22	96
6.5	65 _	272		. — — — — — — — — — — — — — — — — — — —	
		C	ONTINUED ON SHEET 3		j
	-				ا مد حمد ا
		-			125

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	LOG	(Cont	Sheet) ELEVATION		48.01			Но	le No. 58
oject C	ooper	River	Rediversion		atanon St. Stephe	ns, SO	3		SHEET 3
LEVATION	DEPTH	LEGENO	CLASS	FICATION OF MATE	RIALS	% CORE RECOV ERY	BOX OF		REMARKS  calling time water look depth of eathering et. if significants
•	b	1		ત			ff		, <u> </u>
		1//		l, clayey, g					
				conitic, co				J-23	100/.2
		1//	y conte	shell frag	ments			,	<del></del>
	70		y!						100/0
	70						1		100/.2
			ν,						
			Y Y						
			<i>y</i> .						Scale change at
	72		<i>y</i>						70.0'
			<b>,</b>					i	
			<i>y</i>						/ 51 73 5
25.5	73.5		, rop of r	оск 73.5				!	$4 \times 5$ at 73.5
,	74	به محمد		- blue gre	·y				P-1, 73.5 to 75.7
				ed carbonate		,	1		Run 2.1
26.6	74.6		iferous  fine_gra	nard, well o	emented	100	!		Rec. 2.1
			- ITTHE BLA	Lu.			:	W-1	
							i i		
	76			lack to dar! ated, displa			-		P-2
		!		y, contains			Вох	W-2	Fm 75.7 to 79.7
			_ casts of	sand and sa	andy		1		Run 4.0
			_ seams, c ments.	ontains she	ll frag-				Rec. 4.0 difficulty with
	7.0	<del></del>	ments.						core spring extend-
	78	<del></del>	<del>-</del>			100		W-3	ed run
								W-2	
	_		7					<del></del>	
			_					:	
32.0	80_		-!					:	P-3
				e, dark gre					Fm 79.4 to 82.4
<b>3</b> 2.9	80.9		SITICILI	ed hard, fi	ic grain	100			Run 2.7
_				lack to dar		100			Rec. 2.7
34.0	82			oft, consol with sand			Вох	W-4	
34.0	02 _			alcarrous.	1040		2		
							1	₩-5	P-4 82.4 to 84.2
35.2	83.2	<u> </u>		e, dark gre		100	į.		
		-[	<u> </u>	ed, fine gr		TOO		•	Run 1.8 Rec. 1.8
	84	<u> </u>	CONTINU	ED ON SHEEF	4		4		
		1	4				!		
		1	I		·		1	,	
		1							126
		}	- 41				I	i	1

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DRILLING	LOG	(Cont	Sheet) FLEVATION TOP OF HOLE	48.0	) <b>'</b>		Н	ole No. 58
wi - 1 - 1			INSTALL		0.0			i SHEET 4
ک د	looper	River	7	Stephens		BOX OR	·	LOF 8 SHEETS
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIA DESCRIPTION		RECOV ERY	SAMPLE	: (1)	Drilling time water to defish of weathering etc. it significants
a	. <sup>Б</sup> .	•	Shale, black to dark	2200	ť			ı K
30.6	84.6		fissile, soft. Conch		·		ı	2-5 84.2 to 88.0
37.0	85		Sendstone, grey, fine			Вох		Run 3.8 Rec 3.8
		-	ergilloceous hard	grain		2	-	
	86 - :		Shale, black to dark	grey.	100	[	W-6	
			Shele, Black homogeno			!	1	
			fissility well develo	ped.			<del>                                     </del>	7
	88		<del>-</del>   - <del> </del>					
			; - <sub>1</sub>	ļ		ļ ;	!	P~6 Fm 88.0 to 92.0
41.9	89.9	]	-			: 	-	Run 4.0
+1.7	,	===	-   0.2' Glauconite zone	į.	100	1	W-7	Rec 4.0 Core spring diffi
	90	<del> </del>	<del>,  </del>		100	Вох	L	culty extended run 1.0' to fissilitate
	:	5	Limestone "coquina", creamy grey, fossil,			3		recovery
	!	上	ferons, shell fragme	ents			W-8	
		廿二	slightly imbricate, in a glauconite-cart				W-9	1
	9 <b>2</b>		quertz send metrix. moderately hard.	Rock			", ",	P=7
		<del>                                     </del>						Fm 92.0 to 93.8
			93.8' oblique fractue glauconite sand zo		100	į		Run 1.8
		<del></del>	<u> </u>					Rec 1.8
	94	+	93.8-96.8 rock veried soft to moderately h					P-8
	-		with varying percent			1	V-10	Fm 93.8 to 96.8 Run 3.0'
		<del> -  </del>	send.		90	B <b>ox</b>		Rec 2.71
	. 0.:	++	1					Loss 0.3'
	96	<del> </del>	96.8-101.5 rock is t	o <b>rok</b> en				
	' - 		along send rich zone	e.				
	! !							F-9 Fm 96.8 to 101.5
	98 _		·					Run 4.7
	. , , <u>, , , , , , , , , , , , , , , , ,</u>	1 1			81			Rec 3.8 Loss 0.9
	-	<del>├</del> <del>├</del> <del>├</del>	1					
	100 _							
	-	1	CONTINUED ON SHEET 5					
		-						
							,	127
	i	-						1 (

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		(Cont	Sheet)	P OF HOLE 48	.0'		H	ole No.	58
ROIEC!		D f	Pudivoraian	HOHALLATENI 4.2	Stephens,	SC	*****		SHEET 5
	oper	River	Rediversion		. CORE	F		REM	OF 8 SHEETS
ELEVATION	DEPTH	LEGEND		ION OF MATERIALS - Peccipies :	RECOV	SAMPLE	$\epsilon T$	relling time u.	tier in depth of it significants
	ь			J		. 1			4
•		1-1-	-			Box		P-0	
		FT T	Hard mas	ssive rock	81	4		l	8 to 101.5
			- -					Run 4. Loss 0	7, Rec 3.8
		I	<del>-</del>			-		<del></del>	
	102	Τ,Τ	_				W-11		
			_ Limestone	e, "Coquina"					5 to 105.0
			<del>-</del> -					Run <b>3.</b> 5 Rec <b>3.</b> 5	
			- Herd, π	nacciun		Cox		Kec 1.5	
			maru, n	PSSIVC	100	5	W-12		
	104		<del>-</del>				•		
			<del></del>						
57.0	105	T					W-13		
J/ • U	103		Sandstone, 2	reenzrey, poo	orl:			P-11	
		· · · · ·		, celcureous			114		) to 106.4
	106	+		shelly, 105.				Run 1.4 Rec 1.4	
	106.4		becomes well	cemented, ha	rd.	ļ	<u> </u>	Rec 1.4	
58.4		<b>:</b> † [ † ]	. \		:		W-15	P-12	
JU . 4		<b>;</b> † • † •	SM - Sand,	green, fine					to 111.0
		- <b>* • • • •</b>		ereous, argil	1p-+	:		Run 4.6 Rec 4.6	
	108	┊┞┪┞┪	ceous, slig	htly glau <mark>co</mark> ni	tic. 100		W-16	Rec 4.0	
		1 1 1			; MC		-	LAB CL	ASSIFICATION
		-1+1+			27.5%	D		ELEV.	CLASSII
		∹T∳T∳				B <b>ox</b>	1	-59.4-(-	58.4) SM
					:	1			
	110	]				1			
			<del>-</del>			! !	,		
			Limestone,	"Coquine", cr	emy	<u> </u>			
63.4	111.4	1 1		, moderately	1			P-13	
	110		hard, well	cemented.	:	:	· i	   Em   111.4	0 to 114.0
	112		<del></del> 		100			Run 3.0	
			-		1			Rec 3.0	
		Ξ, Ι	<u>-</u>		1		W-1	<b>,</b>	
		J	<del>-</del> -		i	1			
66.0	114	1,1	<del>-</del>	-	ı				
	114.3	PIPE	SM- Send, g	reen, glaucon	itic,	<del></del>	-	P-14	
			fine grain. Limestone,	"Coquine"	<del></del> 4	i		l	0 to 117.0
67 <b>.2</b>	115.2		moderately		100	Box	W <b>-1</b> 8	Run 3.0 Re <b>c 3.</b> 0	
		1779	,			7		1	
	116	2/1	CONTINUED O	N SHUEL 6			17-19		
		:							<del></del>
							1		
		4				:	1	ı	20
									# # 1

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	LOG	(Cont S	heet) ELEVATION TOP OF HOLE 48.01			Но	le No. 58
er op 1			installation version St. Stepl	iens, S	SC .		SHEET D
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS Description,	% CORE RECOV ERY	BOX OR	(Dr.	REMARKS illing time water for depin d eathering etc. it standard.
ā			SC - Sand, green clayey heavily glauconitic, cal- careous, shell fragments, soft, loose.	100	. t	W-19	See Sheet 5
-69.4 -70.0	117.4	15/5/	Limestone, "Coquina" hard	100	В <b>ох</b>	W-20	P-15, 117.0 to 120. Run 3.0 Rec 3.0
7 <b>2.</b> 0	120		SC - Sand, green, heavily glauconitic, contains shell fragments, soft, loose.	100	7		
₹ <b>2.</b> 4	120.4		Limestone "Coquina"  SC - Sand, green glauconitic, contains shell fragments.	100		W-21	P-16 Fm 120' to 122.2' Run 2.2' Rec 2.2'
74.0	122	7/7	Limestone, "Coquina" vuggy, broken, grey. Soft to moderately hard.	100	<b>-</b> ·		P-17 Fm 122.2' to 124.4' Run 2.2
	124		124.2 - 128.0 - soft zone containing 1/4 inch seams of claystone.	<del></del>	B <b>ox</b> 8		P-18 Fm 124.4 to 129.4
	126			50			Run 5.0 Rec 2.5  Loss 2.5' Core blocked inside bbrl. Ex-
	128.		-128.0' - 128.8' Soft Zone			W-22	perienced core loss most probably within this region 124.2 - 128.0'.
	130			50	•		P-19 Fm 129.4 to 132.4 Run 3.0' Rec 1.5'
-84.0	132		Send CONTINUED ON SHEET 7		<del> </del>		
		1					129

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	LOG	(Cont	Sheet) FARMON TO THE ME	u -4.01			Н	ole No.	58
Secret 1				erta i sto s			-		Seed 7
. ~55 <b>1</b>	<u>er 31</u>	yor <u>ile</u>	diversion	St. Stephe	J6 <u>,</u> , <b>8</b> ⊒! 1a⊖ ' .	BUT OF		Pi M	ARAS
	offer to	(EGEN)	i kaj se in katriotek in se Kanada in seksisi	CAN, C	ERY ERY	5 A % PLE	1.	e de la companya de la companya de la companya de la companya de la companya de la companya de la companya de l La companya de la companya de	
	•	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2. 80 - ad. pro- 2. 1008	e, soft,	50			See She Blan	. 1 15
<del>-</del> >	132.		· \					2 . 3,11	→ 135.4
	13→	II i I	(19 store, Mog <u>-</u> rosmil rock -	ritis i, spanti	1.87	Дох	- 2.4	Rec 3.0	
	14							! !	
	<u>.</u> .	90	· · · · · · · · · · · · · · · · · · ·					·	. 0 (35,4
·44,i	19-,4		ritaria de la composición dela composición de la composición de la composición de la composición de la composición dela composición de la composición de la composición dela composición dela composición de la composición de la composición de la composición de la composición de la composición de la composición dela composición de la composición de la composición dela comp		Sec.			,	
			te disconner, Mag	oddin i oʻradi.				:	
	135 136,4	111	-			<u>.</u>		1-22	
			SM- Send, crew, (legionitie, tip Firms with depth	માન સું માંમ.				Ron 3.0	+ to 141.4
	140		a victime wax - see pt		100	:	₩-27	Rec 3.0	
							i :		
	142					Бок 10	<u> </u>	P-23 Fm 141.4	' to 146.4'
					:	!	1	Run 5.0	ľ
			1		100				
	144		<b>}</b> :		:	! !	U-29		
			)		:				
	14 :		) )		:				
			, ,		100	102 11	U+ 30	P-24 fm 146.6 dum 5.0 line 5.0	to 151.4
	148	117 <b>7</b> 1 1	$Y_{i,j} = e^{-\frac{i\pi i}{2}} Y_{i,j} = e^{-\frac{i\pi i}{2}}$						
		•							A TANKA
		*							150

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RILLING	LOG	(Cont Si	neet) ELEVATION TOP OF HOLE 48.01	····	Hole No. 5	
w.t-*		Re <b>di</b> ve	INSTALLATION	ephens, SC		индт 181 —— ин 8 оменто
		:	CLASSIFICATION OF MATERIALS	". CORE BOX C	REMARI	\S
IL FATION	DEPTH	LEGEND	Description)	RECOV SAMPL	E Disting time water	r les defet agnitional
a	. в	· e i er·	$\mathbf{d}_{\perp}$	· · · · · ·		
		┊┋╅┋┪			P-24, 146	.4 to 151.
		:	SM-sand, gray, loose,		Run 50	
		┊┋┩┋┩	glauconitic.	Вох	Rec 5.0	
				100 11	W-31	
	150	:				
		I   I				
		: <b>† I † I</b>				
103.4		<u> </u>	6 11 151	·		
	15 <b>2</b>	: ,	Bottom of Hole 151.4			
	134	•				
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Hole No 10 St. Stoubetts, if DRILLING LOG Lawrence Atlantic MSL CME 15 TO THE COMPLETE PRODUCTION OF THE COMPLETE PRODU TO A CONTACT NORMAL CONTRACTOR OF THE CONTRACTOR LANGE FOR SA Section 4 100 And the second of the second o A Section 1995 And the Company Jensey Parket 10 July 1 The second test of the second Holes Parelle Holes Harrist Art Argan 1.1--4 i..... J Solo Sayles into a COMPLETED A SHEET OF where the contract of the con

	rog	(Cont	Sheet) ELEVATION TOP OF HOLE 47.91			Hole No. 59	
жожа Соорет	River	Rediv	ersion Powerhouse S	t. Stepher	·	•	HIS
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	' ¼ CORE RECOV ! ERY	BOX OR SAMPLE NO		
å	; Ь :		d d	, (	;	. κ	
			Sands grade to medium and coarse grain	d.	.,,-0	- 10	0/ <u>.6'</u>
	30					_	
					J <del>-</del> 7	76 inch PVC casing se	., प्रम
						into top of rock, grouted & redrilled	
	35					$4x5\frac{1}{2}$ core BBr1 to	151.
					J-8	-	50
						•	
	4.0				.1-9	-	45
						_	
			, ,				
	45 45.8		<b>.</b> ∳i		i <del></del>	<b>.</b>	
	+5.8		SM - Sand, green, fine gr	ain,	J-10		00/ <u>.8</u>
			silty, dense.				
	5.1					4	
					.1-11	-	98
	55					_	
			CH - Clay, fat, with occases shell fragments, stiff.	ional	.1-1.	~ ~	.*3
			,				
-1'-!	t·v)						
		TI	SM - Sand, Silty, green		J-13		.18
		<u> </u>	alauconitic			•	
		111					
17. <b>i</b>	11 15	1-1-1-1	CONTINUED ON SHEET 3		<b>.</b>		
		• •				10-	
		į				133	
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DRILLING	LOG	(Cont Sh	eet)	tor or more 47.91	-			Но	le No.	59	3
	er Ri	ver Redi	version Po	werhouse !		phens.	SC			SHEET TOF B	-
FLEVATION		LEGETAD		CATION OF MATER A		THE CORP	B 28 7.7		RE.	MARKS.	at :
А	ь	,				181			r der	er ander	
•		7.7.9.4 s	C- Sand.	green, clase	V .		•		!		
				z, carbonace				1 .	}		1007.3
			hell fram						oval.	. Tan w	
		755							7	teresta.	
		1979							•	•	
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			listriad.	carbonate o	, . ,				73.5		5 '
				Forons,					Ron 2.		•
			edd arsant		,				Rec 1.		
		*				*			ci 🦠	. '	
<u>- ,                                   </u>	4.5					•					
		:- : si	hale, gre.	to black, -	or,				25511 2		
			on≾olidate	d, displacs -	Some .				10.75.	3' ()	73.5
				contains los			Post		i Milita Start		
				gillacones s							
				occasional :				!			
				(Shale bis entraction							
	is —		ore Bbrl)	exceat top	1 I O::1	$\mathbf{I}$ (10)					
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			,					
								į	Pop1 3		
								į	To 78.		- 5'
		· <del></del>							Pun 31		
÷									•	** "	
	-					1					
						115		j			
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							Вом		10 11	t•	
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RILLING	LOG	(Cont S	heet) LEVATION TOP OF HOLE 47.91			Н	ole No59
ROJECT			NSTALLATION		···		SHEET 4
Cooper	Kiver	Kedive	rsion Powerhouse St. Steph		7 ~		REMARKS
ELEVATION	DEPTH	EGEND	CLASSIFICATION OF MATERIALS	RECOV	BOX OR	11	Prilling time water a surger to
	ь		d	ERY	1 40		Residence et et sandone.
			Blended sample classifies	·	•	•	Pull 5
			as (MH)			W - 1	Core run extended
			ds (rm)	MC		~ '	to allow for re-
÷. 7 ز	85.3			_ 50.0%			covery of sands
		TITI					FM 83.6'to88.4'
	86	$\bullet \downarrow \downarrow \downarrow \downarrow$		100	Во <b>х</b> 2		Run 4.81
		:	644 6 1		_	W-2	Rec 4.81
		! <b>         </b>	SM, Salt and pepper sands,				1.00
		<u> </u>	fine to coarse grain with				
		[   I   I	shell fragments.				1
		┊╽┿╽┿					
	88 .	⇉↟⇵↟↲					
4.0.5	33.4	• • •					<u> </u>
		TT					D. 11 6
		+11	Limestone, "Coquina", cream			W-3	Pull 6  Fm 88.4'to 91.9'
		二二	grey, hard massive sand,				Run 3.5
			silt matrix, well cemented.				Rec 3.5'
	30						, J. J
				100			
				, 00	_		
					Box		
	-	TTT.			. 3		
	92			· -	:		
	74 -				:		Pull 7
				1		:	Fm 91.9'to 94.4'
					i		Run 2.5'
					İ	i	Rec 2.51
				100		:	
	94		Vuggy, moderately hard but		1	7	1
		1	broken.				
	-				•		
							Pull 8
	-						Fm 94.41 to 97.51
							Run 3.11
	96			100	Вох	· J	Rec 3.1'
				1	4	1	
		+		1	!	:	
		1		1		:	
		TI			!	ı	
	98 <del>-</del>		Prokon into		i	i	Pull 9
	90 -		Broken intoh fragments	i i			Fm 97.5' to 100.1
			along sandy soft zones	100	<u> </u>	İ	Run 2.61
				100			Rec 2.6'
		+		!		1	1.00 2.0
						ı	
	100						
	-	<del>                                     </del>	CONTINUED ON SHEET 5	<del>-</del>			
			22	•			
		į,					1-
		+					135
		1					

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RILLING	LOG	(Cont S	heet) flevation top of Ho	47.9			Но	le No.	59	
o € 1			version Powerhous	NSTALLATION		<del></del>			SHEET OF 8	5 SHEETS
LE + ATHO N			CLASSIFICATION O	F MATERIALS	% CORE	BOX OR	·	illing time	MARKS	depth up
	ь				ERY C	NO		eutrering (	ile il agnif	(ant)
			Limestone, "Coqui	na <sup>ri</sup>	·		W - 4	Pull	10 01,1' t	0 103 (
	102				100		-	Run 2	2.91	0 10).
						-		Pull Em 10:	 	106.0
	104		Vulga - somewhat around rugs	broken	100	вох 5		Run 3 Rec 3	ı	100.0
c.1	106	呈出	SM - sand, greeni	sh gray,		<del>-</del>		Pull		·
	108	IJ∳Ĭ∳	slightly clayey. dense.		100	!			5.01 to	110.5
	110					: 				
	112				50	Box 6		Pull 1 Fm 110 Run 3' Rec 1.	.5'to	113.5'
5.5 1	13.7 114		Limestone, Gray 'moderately hard, broken.		. 75	· !		Pull 1 Fm 113 Run 2. Rec 1.	.5' to 0'	115.5'
	116				90	<del>-</del>		Pull 1	5	
			CONTINUED ON SHE	ET 6					136	,

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	LOG	(Cont S	Sheet) ELEVATION TOP OF HOLE 47.9'			Hole No.	59
i O Desi	p Dise	D D -	INSTALLATION				SHEET 6
Ober	KIV	PI KO	diversion Powershouse, St			SC	OF 8 SHEETS
MOIT	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	RECOV	BOX OR	(Drilling time	MARKS - water loss depth of
	118	}	d	ERY	NO	u eathering.	de il significant,
		1	Limestone-"Coquina"	1	-	1	<u>_</u> K
	-		moderately hard	i		Pull	
			moderatery hard				to 118.81
ĺ	_				i i		3' Rec 3.0'
				90	i .	CL 0	. 3 .
	118				, pou	1	
				1	B0X	ŀ	
	-			ļ	. 0		
			Sandstone-Grey, glauconitic	<del></del>	•	Pull #	16
			shelley.	ĺ	,		to 123.5'
4			soft to moderately hard	; !		Rup 4	7 Rec 3.5
:	120		and and a correctly mana			CL 1.	
:	コ						-
!			Limestone-Grey, hard			Run ex	tended to
:			''Coquina','	75		enable	recovery
			Contains 2" peat seam	' '		core w	ouldn't stay
	-			ĺ		in bar	reł upon
	122	I,				pullin	g.
				į			
	+	7-1-1		1	ļ	1	
•	Ŧ				į	0.11	
11	24			İ	DOV	Pull #	
				ł	BOX		to 126.01
(				92	<i>'</i>	CL 0.	5' Rec 2.3'
		4		72		102 0	<del>-</del>
	7			- 1		[	
	. 🛨			1		ļ	
1	26		126.0' -128.5' Badly broken,			<b></b>	
i	<u>-</u> ±		loosly cemented, friable.	1		Pull #	18
j	-F		mostly shells and coarse	}	]		to 128.51
:	<u> </u>		sand.	92			' Rec 2.3'
			İ	-		CL 0.2	1
1	28			i	İ	- [	
						1	
i (	1	\ <del></del>	Limestone-Grey, sandy,			P. 11 //2	
+			interlayered	1		Pull #1	y to 132.5'
	中		loose quartz cearse grain		вох		Rec 1.81
: :1:1	30			45	8	CL 2.2	
7.2	,		fragments.	ן כד	ļ	- 2.2	
}	-		- 1	1		1	
j						1	
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į	브			-		}	
13	12 1	J _	_		}		
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	1					1	13/

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KILLING	LOG	(Cont 5	heet) ELEVATION TOP OF HOLE 47.91	Hole No. 59			
OJECT			INSTALLATION			SHEET 7	
Cooper	Rive	r Redive	ersion Powerhouse St. Step	ien, S	.C.	OF 8 SHEETS	
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOV ERY	BOX OR	(Drilling time, water loss, depth of weathering, etc., if significant)	1
3	132		d Caracia and Grand St. 18 46	<del>e</del>	- t	B 11 410 Continue	
		<del></del>	Continued from Sheet #6	45	-:	Pull #19 Continue	= a
		=======================================	Limestone-Grey, hard, sandy with <b>fossil</b> itherou	: ; •		Pull #20 132.5' to 135.0' Run 2.5' Rec 2.0'	ı
	134	芸		80	!	CL 0.5'	
				İ	BOX		
	124		Sands-Green, vary clayey, glauconitic. Sand in part grades to silt.		. 8	Pull #21 W-8   135.0' to 137.5' Run 2.5' Rec 2.0	
	136		fense	100		CL 0.5'	
					:	Pull #22	
	138			100		137.5' to 140.0' Run 2.5' Rec 2.5	ı
	140					Pull #23 140.0' to 142.5'	
				100	вох 9	Run 2.5' Rec 2.5	'
	142					0.11.70	
				100		Pull #24 142.5' to 145.0' Run 2.5' Rec 2.5	1
	144						
						Puil #25 145.0' to 147.5' Run 2.5' Rec 2.5	. 1
				100			
					BOX 10		
	142	779 <u>7</u>	thatinued on Sheet #8	_ <u>87</u>	10		
						120	

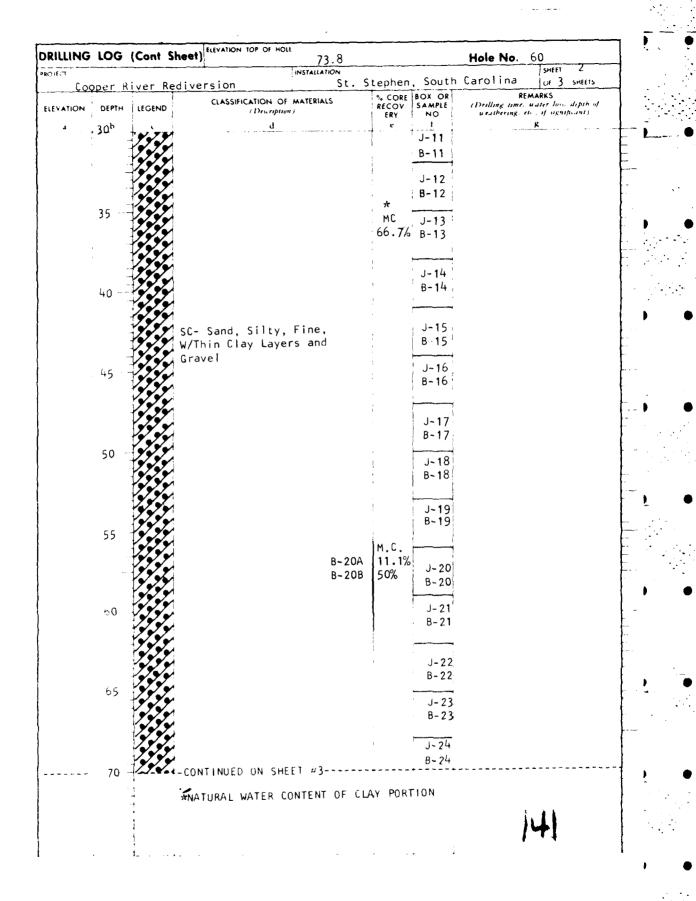
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ILLING	LOG	(Cont S	heet) ELEVATION TOP OF HOLE 47.91			Hole No. 59
JECT			INSTALLATION		r	SHEET 8
ooper	Kiver	Kedive		tephen, S	BOX OR	OF 8 SHELTS
EVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	RECOV-	NO.	(Drilling time, water loss defith at weathering, etc., if significant)
<b>.</b>	148	-	<u>d</u>	<u> </u>	ļ _ t _	1 0 11 40C
		166	Sands-Green, vary clayey.		!	Pull #26
			glauconitic. Sand in	i	1 1	147.5' to 151.0'
		262	part grades to silt.		. DOY	Run 3.5' Rec 2.6'
		12/52	Dense	1	BOX	LL 0.9.
	-	7/7		74.3	10	1
	150 -	12/1				
		15/1			1	
	i z	166		'		1
03.1	151.0	ACA	BOTTOM OF HOLE 151.0'	<del></del>	<del> </del>	<del></del>
		1	BOITOM OF HOLE 151.0	i	j	1
	i <u>-</u>				1	
		1		:		Į.
		4		1	1 ,	
	, =	1				
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		i !				}
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		j l		:	!	
	-	1		!	,	
	_	]				
		1 :		;		1
		}			i	
		] ;		1	;	j
	i -	1				
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	i –	1				
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	-	+		1	1	
		<u>.</u>			1 1	130
						139
		1 .		. 1		1

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Hole No. 60

DD14 1 444 1 22	DIVISION	INSTAL	LATION			SHEET	
DRILLING LOG	South Atlantic				South Carolin		
PROJECT		10. SIZ	E AND TYP	E OF BIT	5" Square Aug		411
LOCATION (Coordinates o	Rediversion	11. DA1		LEVATIO	N SHOWN (TEM or MST.	Core	
	595-00, 550' Left	12 MA1	MSL	ER'S DESI	IGNATION OF DRILL		
			Failir	na 314			
Savannal Dis	rawing title	13 TO	AL NO. O	OVER-	DISTURBED	UNDISTURB	ED
and tile number	60	<del> </del>				<u>.</u>	
NAME OF BRILLER		<del></del>	AL NUMBE				
DINE TION OF HOLE		15. ELI	VATION G		50.5		
) ОЧНЕЦТІОМ ЭЕНОЦЕ ——ҚұЕНТ А, М.Ш.	NED DIG FROM VERT	16 DA	E HOLE			OMPLETED	174
		17 61 6	VATION T		<u>) Mar. 1975   2</u>	2 1101 . 13	12
្រីកា ១៤៦ ខេត្ត ខេត្តក្នុងគ្នា គ					TE 73 81	100	*
LICENSE HILLES INTO A	ΣV.R. I		ALTURE 3			100	
CONTRACTOR OF HISE	1,00,01			<u> </u>	aris_		
E. E. + 194 (EE 7 11 ) 1 (5	A SS FICATION OF MATER	1415	* CORE	B X SH SAMPLE	⊕EMA!	RK5	
	Tes contra		E.H.t	N	e es d'antiring, etc.,	er loss, depth o if eignificant	) f
نهاجها تنافع المنافعة	<b>់ខ្</b> ុំក្នុង ប្រជាពលបាន ស្ត្រី ខេត្តប្រភ	, = ; .	•	t Time	· - i		
. • •	•						
72.7			<b>-</b> ,		†		
	•				Water Branch		i
-190	n - se , i es laves i	The	1 MC	B-2	Hate 19 Mar.		
			123	ļ	Depth to wat	er durind	j
- 29			' '		drilling.		
				1 3 3			
	<b>Y</b>						
			1	.j = /4	7		
, 711	!		-	2 - 4	W.T. 15.31		
	in Weighlit, with and Tan				Water table	realing	
			-		24 hrs.	atter	
			1	5	pale complet	ed.	
	1 ,		1	9-5			
• • • • • • • • • • • • • • • • • • • •	<del>//</del>		1		J= Jar Sampl		
1//	<b>/</b> .			1-6	B= Bay Sampl		
	n- li., aray and Pi	nk.	1	1 8-6	LAB CLASSIFI   Sample-FLEV.		
7//					8 2 68.8-7		
				1-7	B-3 £8.8-7		
1//	<b>7</b> .			1 8 /	n 4		
<b>'44</b>			1		8-6 56.8-5		
					B-9 47.8-5		М
				1-8	B-12 35.8-3		
	✓ Paret, lan and Gran ✓ Lave, Fine and Media		ĺ	b-d	8-13 35.8-3		
	filest, fine and Media	u 11		J-9	B-15a 31.8-3 B-15b 29.8-3		
- 7			1	B-9	B-150 29.0-3 B-20a 16.3-1		M
	Z		1		B-206 14.8-1		``
				<del></del>	B-25 -0.2		ł
	9			J-10	8-33 -21.2		
	<b>5</b> 1		Į į	B - 10			-
199	ya sa lay laya		1		}		
· · · · · · · · · · · · · · · · · · ·	. <b>24</b> _ i grada Bugar   MijamEET		¦		 		
, ;	NOTE: poils tiel: clas			]			
• : 1	in accordance with the		<b>(</b> )				ŀ
. 4	2 FE TOWNSTRICATION SA	5 CC# .			1	40	[
	1		1		(	7.	ŀ



RILLING LOG (	Cont Sheet) ELEVATION TOP OF	73.8		Hole No. 60	
ROJECT		INSTALLATION	han South Car	SHEET 3	
Cooper Riv	ver Rediversion		hen, South Care	olina OF 3 SHEETS  REMARKS	_
ELEVATION DEPTH	EGEND CLASSIFICATION Descrip		% CORE BOX OR RECOV- SAMPLE NO	(Drilling time, water loss, depth of weathering, etc., if significant)	
4 ,70b	d d		e t	<u>g</u>	٠ ٦
- E					
			J- 25		
- <del></del>			B-25		
	<b>/</b> //		J- 26		
75 —			B-26		
12			i		
7	SC- Sand, Silty	to Fine	J-27		
Y	Interbedded wit		B~27 :		
80	Layers		-		
,	<b>7</b> 55		J-28		
2			B-28		
Y	7.55				
2	<b>99</b>		J-29 .		
85			B-29		
5					
	<b>77</b>		J-30		
<i>2</i>	<i>yy</i>		8-30		
200			, <del></del>		
90	<b>7 y y</b>		J-31		
			8-31		-
	<b>//</b> /		į !		
· · · · · · · · · · · · · · · · · · ·			J-32		
95 K	<b>7.7</b>		B-32		
			J-33		
			B-33		
_ •	Top of Rock 98  Shale- Dark Gra		B-34		
;-	— _ silate- park ura	iy, Halu	דנ-ם		
- • 100 <b>=</b>					$\dashv$
	BOTTOM OF HOLE	100.01	1		
1			*		
			•		
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•					
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:				1/10	Ì
				142	
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						Hole No.		
DRILLING LO		VISION At Lantin	INSTAL		.ho~ ^	·	SHEET 1	
PROJECT		South Atlantic	10 5175	L. Step	FOF BIT	.t. 4" Square Au	or 6 SHEETS	
Joop <b>e</b> r Rive	r Redi	version	11. DAT	UM FOR E	LEVATION	SHOWN (TBM or MS)	5 10 10 10 10 10 10 10 10 10 10 10 10 10	
LOCATION (Coordin	ates or St			SL				_
DRILLING AGENCY		Right of Centerline			ER'S DESI	GNATION OF DRILL		
Savannah Di				ME - 75	OVER-	DISTURBED	UNDISTURBED	
HOLE NO (As show and file number)	n on draw		BUR	AL NO. OF DEN SAMP	LES TAKE	38	2	
NAME OF DRILLER		61	14 TOT	AL NUMBE	R CORE E	oxes 1		
T.W. Scott			15. ELE	VATION G	ROUND WA	TER +46.3		-
DIRECTION OF HOL			16 DAT	E HOLE			OMPLETED	
X VERTICAL (T)	NCLINED	DEG FROM VERT		VATION TO			<del>+-1-7</del> 5	
THILKNESS OF OVE	RBURDE	N 86.01				Y FOR BORING	. 7	
DEPTH DRILLED IN	TO ROCK	4.61		ATURE OF			• .7	
TOTAL DEPTH OF	HOLE	90,61	CH	narles_	M. Dea	ver		. !
LEVATION DEPTH	LEGEND	CLASSIFICATION OF MATER (Description)	IALS	% CORE RECOV- ERY	BOX OR SAMPLE NO	REMA (Drilling time, wa weathering, etc.	ter loss, depth of	
	1414	SM-Tan, fine sand			J-1	Pull #1		_
	IdId					0.0' to 3.0'	ı	
•   -				1	B-1	Run 3.01 Rec		
i =	9799	SC-Tan and Red.		100	D-1			
, =	<b>7</b> , <b>7</b>	sandy clay			1			
-						j=Jar Sample	<u>,</u>	
	999				1	B=Bag Sample		
1					J-2	W=Waxed Samp	ole	
				l	ł I	Pull #2		
						3.0' to 6.0'		
	<b>7.7</b> 7			MC	B-2	Run 3.0' Rec	3.0'	į
				17.3%		LAB CLASSI		ı
				100	J-3	Sample EL		₹
						B-2 49.3- B-5 38.3-	-	ł
L I						B-7 23.3-		-
6 -								4
	<b>,</b> , ,					Pull #3 6.0' to <b>9.0</b> '		1
						Run 3.0' Rec		
:				100	B-3		-	
				100		LAB CLASSII	LEV, Classif	f f
		CC T 1 C '	i		j-4	B-9 9.3-	13.3 SM	
= =		SC-Tan and Red, clayey sand				B-12 -6.3-	(-14.3)SP-SM	۹
		Clayey Sanu				B-14 -24.3-	(-29.3)SM	ل
글						Pull #4		
. =		,				9.01 to 12.0		-
10					J-5	Run 3.01 Rec	3.0'	
	9799			100	B-4			
,								
· ∃								1
=								ı
12								-
<del>-</del>	Ì	Continu <b>e</b> d on Sheet #:	1			3 9.01		j
	ļ	NOTE: Soils field class		_		Date 3-27-75		Ì
	1	in accordance with the Soil Classification Sys	Unifie	1		District with	1//2	ł
. • •							. /	

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SC-Tan and Red, clayey sand  14  Contains some gravel below 14.0'  SM-Tan and Red sand, with clay pockets, some gravel  18  SM-Dark gray sand, dense, Argillaceous, with clay layers throughout, slightly micaceous  22  MC  36.2% B  100	Hole No. 61
ELEVATION DEPTH LEGEND CLASSIFICATION OF MATERIALS (Decription).  SC-Tan and Red, clayey sand  14 Contains some gravel below 145.2% B 100 J  SM-Tan and Red sand, with clay pockets, some gravel  18 SM-Dark gray sand, dense, Argillaceous, with clay layers throughout, slightly micaceous  22 O SM-Dark gray sand, dense, Argillaceous, with clay layers throughout, slightly micaceous  24 O O O O O O O O O O O O O O O O O O O	SHEET 2
SC-Tan and Red, clayey sand  14  Contains some gravel below 14.0'  SM-Tan and Red sand, with clay pockets, some gravel  18  SM-Dark gray sand, dense, Argillaceous, with clay layers throughout, slightly micaceous  22  MC 36.2% B. 100	
Contains some gravel below 14.0' 100 J  SM-Tan and Red sand, with clay pockets, some gravel  SM-Dark gray sand, dense, Argillaceous, with clay layers throughout, slightly micaceous  20  O  MC 36.2% B 100	
SM-Tan and Red sand, with clay pockets, some gravel  100 B  SM-Dark gray sand, dense, Argillaceous, with clay layers throughout, slightly micaceous  22  MC 36.2% B 100	5 : 6 :
with clay pockets.  some gravel  18	
SM-Dark gray sand, dense, Argillaceous, with clay layers throughout, slightly micaceous  MC 36.2% B 100	
SM-Dark gray sand. dense, Argillaceous, with clay layers throughout, slightly micaceous  22  MC 36.2% B	Pull #6 17.0' to 21.0' Run 4.0' Rec 4.0'
SM-Dark gray sand. dense, Argillaceous, with clay layers throughout, slightly micaceous  22  MC 36.2% B	
22 0 0 0 0 MC 36.2% B	9
24	Pull #7 21.0' to 24.0' Run 3.0' Rec 0.0' CL 3.0'
MC J. 36.2% B. 100	
36.2% B	Pull #8 24.0' to 27.0'
26	10: Run 3.0' Rec 3.0' 7
	Pull #9
28	Continued
Continued on Sheet #3	

LLING	LOG	(Cont S	heet) Elevation to a construction 55.3			Hole No	. 51
Coop	oer Ri	ver Red	iversion St. S	Stepren,	S.U.		44.1 3 2
		LE (E)(D)	CLASSIFICATION OF MATERIA'S		8 + J#.	••	V AFT
	28 "	20 10	$De_{x}(x) = 0$	, R+	••		
	20	1414	SM-Dark gray sand, dense,			Pu11 #9	•
		1111	Argillaceous, with clay			27.01 to	
		1414	layers throughout,	0			Rec 0.0'
		IţĬţ	slightly micaceous			CL 3.0'	
	30	IţĮţ					
		1111				Pull #10 30.01 to	
		†I†I					Rec 0.01
		† <b>I</b> † <b>I</b>				CL 3.0'	
	32	† <b>]</b> † <b>]</b>		0			
	72	† <b> </b> †   <b> </b>					
	1   1						
	ĮţĮţ				Pull #11		
	<b>+</b> † • †				33.01 0		
	34	+1+1				Run 3.01	Kec G.U'
		†I†I		0			
		† I † I					
		1+1+					
	36	I†I†					<del>-</del>
		1111				Pull #12 36.01 to	
		<b>†</b> 1†1				Run 3.01	
		† <b>1</b> †I				CL 1.01	
	38	<b>†</b>   <b>†</b>		56			
~		1+1+	SM-Dark gray sand, dense,		B-8		
		IţIţ	Argillaceous, with shell fragments, slightly		J-11		
		-	calcareous		<u> </u>	Pull #13	
	C.	·∳┇∳┇				39.01 to	
	•0	<b>.</b> †I†I				Run 3.0' CL 1.0'	Rec 2.01
		.† <b>]</b> † <b>]</b>		66		JL 1.0	
		1   1					
	4ĵ	·↓∳↓∳			:-12		
		1111	Contains some gravel to 42.0	•		Pull #14 42.01 to	46.01
		<b>† ! † !</b>		75	C 15	Run 4.01	
		+ <b>I</b> + <b>I</b>			6-9	CE 1.01	
			Continued on Sheet #4				

DRILLING	LOG	(Cont	Sheet) ELEVATION TOP OF HOLE 55.3			Hoise No. 61	_
PRC (ECT			INSTALLATION	C h !		SHEET 4	
Cobe	r Riv	er Red		Stephen "CORE	S.C.	OF 6 SHEETS	
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS  Description :	RECOV ERY	SAMPLE	(Dilling time water loss depth of weathering, etc., if significant)	
4 .	446	H	SM-Dark gray sand, dense,	<del></del>	<u> </u>	8 8	-
		<u> </u>	Argillaceous, with shell		ļ	Pull #14 Continued	
			fragments, slightly		B-9	Gorermado	
		- 1414	calcareous		!		
	46	1111		:	J-13		
			<b>}</b> :			Pull #15	
		]   ]	, ·	;		46.0' to 4 <b>9</b> .0'	
	-	:	SM-Dark gray sand, dense,	i	İ	Run 3.0' Rec 3.0'	
		4141	saturated, non-cemented.	100	B-10		
	48	<b>-</b>	slightly micaceous				
		]   [   ]	(Slumps on withdrawal)	ļ			
	-	·;		ļ	J 14		
1		+ + +		i I	-	Pull #16	
i	50	╡┇┪┇┪				49.0' to 52.0' Run 3.0' Rec 0.0'	
	50	] <b> </b> [			-	CL 3.01	
	-			0		32 )	
:	-						
!		╡┇┆╏┪	•				
	52	╡╽╿╏					
į	-	<b> </b>				Pull #17	
	-	<b>₹</b>	1			52.0' to 55.0' Run 3.0' Rec 0.0'	
í	-	<b></b> ₹₹₹				CL 0.0'	
į	<i>-</i> 1.	╡┡╏┡╏		0			
i	54 —	<b>         </b>			1		
i	-	╡╿┩╿					
ļ		]			<del> </del>	Drive-3" ID Splitspoon	_
į	-	<b>┧┇┝┇</b> ┡		100	J- <b>1</b> 5	Blows 100/0.6'	
1	56	╡┇┥┇┥				Pull #18	
:	-	<b>┆</b> ┇┆┪				55.6' to 58.6'	
	-	<b>┦</b> ┋ <b>╿</b> ┇		66		Run 3.01 Rec 2.01 CL 1.01	
	-	<b>┋┋┋</b>		66	B-11		
1		┧┝┇┝┇			''		
İ	58 —	<b>    </b>					
ļ		<b> </b>			J-16		
:		1 <b>† ↓ † ↓</b>				Pull #19 Continued	
1	-	1111				Continued	
:	60 -						_
:			Continued on Sheet #5				
j		-					
į		1				146	
		1		1	1	170	

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RILLING LOC	(Cont S	Sheet) 155.3	-		Hole No +1
Cooper R	iver Red		phen,	5.6.	A the control of the
EVALUM DEPT	H LEGEND	CLASSIFICATION OF MATERIALS Description d	°C CORE FECOV ERY	BOX OR	REMARKS  The analysis of the control
л 060 г.		SM-Sand, dark gray, dense saturated, non-cemented, slightly micaceous.  (Slumps on withdrawal)	. 66	B-11	Pull #19 58.61 to 61.61 Run 3.01 Rec 2.01 CL 1.01
62					Pall #20 61.61 to 64.61 Ron 3.01 Rec 3.01
64			100		
	1			J-18	
66				B-12	Pull #21 64.61 to 69.61 Run 5.01 Rec 5.01
			100		
6 <b>8</b>					
				J-19	
70					Pull #22 69.61 to 74.61 Run 5.01 Rec 3.01 CL 2.01
72			60	B-13	
74		·			
					Pull #23 Continued
<b>7</b> 0	TATA	Continued on Sheet #6			ere en
					147

	LOG	(Cont !	Sheet) ELEVATION TOP OF HOLE				Hole No.	
Coope	r Rive	r Redi	version	St. Ste	ohen	s c		SHEET 6
LEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATE		% CORE RECOV ERY	BOX OF SAMPLE NO	Dilling time	REMARKS . water loss, depth of etc. if significant;
å	. <b>76</b> <sup>b</sup>		SM-Dark gray sand, d saturated, non-ce slightly micaceou (Slumps on withdr	mented, s	60	B-13	Pull #23 74.6' to Run 5.0' CL 2.0'	79.6' Rec 3.0'
	80 -				·	J-20	Pull #24 79.6' to	Q1, 41
-25.7	82		SM-Dark gray sand, d silty. with shell fragments, micace		100	B-14		Rec 5.0'
	84					J-21	Pull #25	
- 30 . 7	86		TOP OF ROCK 86,0' Sandstone-Gray, hard slightly calcare		100	J-22 B-15	84.6' to	
31.9			Shale-Dark gray, sli calcareous and				W-1	
	88 —		consolidated t  Hard below 88.3' and  bedded.	o 88.3'	93	BOX 1	Run	#26 ' to 90.6' 3.0' Rec 2.8' 0.2'
-35.3	90 —			-				
,,,,			BOTTOM OF HOLE 90	.6'		1	umber requi	PER FOOT: tred to drive tspoon w/140 lt. ng 30".
			!					148

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							Hole No.	62		
DRILLI	NG LO	vG T□	IVISION South Atlantic	INSTAL	. Steph	en s		SHEET 1	,,,,]	
PROJECT			Joach Actualitie	10. SIZE	AND TYP	E OF BIT	1 3/8" ID Spl	tspoon	E 511	
<u>Co</u> oper	r Rive	er Red	iversion	11. DAT	UM FOR E	EVATION	SHOWN (TBM or MSL)	Square	Auge	
. LOCATION	Coordin	ates or St	ation) 300 Left	MS.	L			·		
DRILLING A	GENCY	,,, <del>,,,</del>	Jou Lett	7			GNATION OF DRILL		1	
Savann				Failing 314  13. TOTAL NO. OF OVER- DISTURBED UNDISTURBED BURDEN SAMPLES TAKEN						
end Ille num	As show bac	n on draw	ing title	BUR	DEN SAMP	LES TAKE	18	<u> </u>		
. NAME OF DI	RILLER				AL NUMBE		<del></del>			
C. Par		F		15. ELE	VATION GI		<del></del>	MPLETED		
X VERTICA			DEG. FROM VERT.	<u> </u>	E HOLE	21	March 75 29	March	75	
THICKNESS	OF OVE	RBURDE	N 92.2'	<b></b>	VATION TO					
DEPTH DRI	LLED IN	TO ROCE			AL CORE		Y FOR BORING	<del>83</del>		
. TOTAL DEP	TH OF	HOLE	97.5'	7 -	Davis	Mareci	J.,		- 1	
ELEVATION	DEPTH	LEGEND	CI ACCIDICATION OF MATERIA	NLS	% CORE RECOV- ERY	BOX OR SAMPLE NO.	(Drilling time, wate weathering, etc.,	IKS r loss, depth if significant	ot	
		111	CL-Red and tan.			<b></b> -				
1			silty clay		Į	J-1			ļ	
			1		]	)	W.T. 17.0'		þ	
60.3	$\exists$				l		Date 21 March	1_75	F	
64.3	、_∃		ML-Red and tan,		1		Depth to water		F	
	, —		silty clay			J-2	during drill:		F	
!	$\exists$		, ,		ĺ				F	
							W.T. 14.21			
	$\exists$						Water table r	eading	F	
59.1 1	0 =	-	CH-Pink and tan,		ĺ	( i	hrs. af	ter	F	
		///	fat clay			,	hole complete		F	
	=					J-3	•		F	
{									F	
54.6	$\exists$								F	
1	, _ <del>]</del>	777	SC-Tan and red,				1 1 -		F	
1	5	///	clayey fine sand			J-4	J-Jar sample		F	
	$\exists$	////	1				5" Square au	oer	F	
		<b>77</b> 5					0.0' to 15.0		20	
	$\exists$						Splitspoon		F	
	ر		1				15.0' to 31.	5'	21	
2	٥ –	<b>7,7</b> 5	1			J-5	4x5½" Barrel 31.5' to 97.	c 1	21	
}	$\exists$	*/*/					21.2 (0.9/.	ָי כ	24	
						ļ			F	
	$\pm$	1/1	-						26	
2	5 <u> </u>		1	ı	' i	}			70	
43.1	=	1/1				, ,			/ ° F	
			Sand-Tan, silty fine sand			J-6			78 <b>–</b>	
	}		with interbedded th clay lenses	ın		}			, , F	
	$\exists$		l	Ì			2 1 2:		, <sup>38</sup> F	
31	ი _∓				ĺ		Scale Change	at 30.0	' 35 <b>E</b>	
1	-		Continued on Sheet #2				RLOWS PER	FOOT:		
	$\exists$		NOTE: Soils field classi	ادري	Ì	,,	Ther required		Ĺ	
ļ			in accordance with the U	Inted			mrer required 2° Tu splits, o			
İ	$\exists$		Soil Classification Syst	.en.	·	· · · · · · · · · · · · · · · · · · ·	nner falling 3	o". i#	9	
	$\exists$	l	- <b></b>		i		.,	17	/ L	

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RILLING	LOG	(Cont SI	teet) ELEVATION TOP OF HOLE	3.6			Ho	le No. 6:	2
OJECT		-		INSTALLATION	C 4 1				SHEET 2
Cooper	River	Redive			Stephen,	S.C.		2544	OF 6 SHEETS
LEVATION	1	LEGEND	CLASSIFICATION OF (Description	MATERIALS )	% CORE RECOV ERY	SAMPLE NO.	(Dr	REMA illing time, wa eathering, etc.,	ter loss, depth of
4	30 ь	c 22 2	<u>d</u>		<u>e</u>	f		8	
	-		Sand-						
	=		with interbedde	ed thin				l1 -0	24 51
			clay layers.					4×5½ @	100/0.9
	1 -							Pull #1	
	-	////							o 34.51
	32 —	1/9//						Run 3.0	Rec 2.4'
35.9	32.7	<b>%/</b> •//•						CL 0.6	
35.5	33.1		Sandstone layer 32	2,7' to 33	<u>.1</u> 4				
,,,,	-	1///	<b>jand-</b> dark gray,		80				
	j., =	19/9/9	fine grain in						
	34 -	1///	with clay lay	/el5.				ļ	
	-				<del> </del>			Pull #2	
	-	1///							o 37.5'
	_	////				DOY			Rec 1.3'
		////				BOX 1		CL 1.7	1
	36	///			43.3	•	J-8		
	=	////						1	
		////							
		////							
	i =	///							
	38	///						Pull #3	- 1.0 51
	; =	///						3/.5' T	o 40.5' ' Rec 2.3'
		////						CL 0.7	1 Nec 2.5
		9//			76.7			••• ••• /	
	-	///						i .	
	40	////							
	, 🕶 🗀								
	, -	///				1		Pull #4	
	1 _	////				}			o 43.51
	_	1././							Rec 2.0'
	-1.0	///						CL 1.0	
	42	///			66.7		J-9		
	! =	1././							
		(////						1	
		///			1			l	
		///		•		BOX		Pull #5	
	44	////				2		43.5	o 46.5'
		///						Run 3.0	Rec 3.51
	į -	///			117			CG 0.5	1
		////			117			ĺ	
		(///						l	
	46	6/./.	· · · · · · · · · · · · · · · · · · ·						
	· · · · · -		Continued on She	et #3	!			1	
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RILLING	LOG	(Cont	Sheet)	ELEVATION		6	8.6			Но	le No	. 62	2
OIECT							STALLATION						SHEET 3
Cooper	Rive	r Rediv	ersic	n			St. S	<u>Stephen,</u>		-			OF 6 SHEETS
LEVATION	:	LEGEND		CLASSI	Оен	ription)	ATERIALS	RECOV.	BOX OR SAMPLE NO	110			RKS ter loss, depth of if significants
.1	,46 b	17.77	Sand	-Dark		d ' •	•	117	4 · · · f	.i- 10	Pu 1 1	#5	Continue
	į :	1////	a a				er <b>be</b> dde		4	3 10			
	1	<i>////</i>	, i			laye			:		Pu11		1.0 51
		1///	,					ı	BOX				49.51
		1.///	1						BOX		Kun	3.0.	Rec 3.u'
	48	1././	4					100	2				
		1./././	1					. 100			ł		
		1/1/1	3								1		
		1/9/9/						:			l		
		1///	4					<u> </u>	1				
		1///	4			T -		Pull	#7				
	50 . 1	1././	1		1			49.5	¹ to	52.51			
		1././.	1		i			Run	3.0'	Rec 2.01			
	-	1/-/-/.	1								CL	1.0'	
		1///						66.7	i	J-11	1		
	1	1///	1					1					
į	52	V.///	1						i				
	<i></i>	1././	1					!			]		
		\./././	1						4		<u> </u>		
	-	<b>6/9/1/.</b>	1					:	1		Pull		
		1////	]					1	BOX				55.5'
		1/1/1/0						İ	3	:			Rec 2.01
	54,	Y///	į						i		CL	1.0'	
		1.///	į										
	-	1././						66.7	i	· ·			
		1./././						1	1	!	1		
	-	<b>\././</b> /						1			1		
	-	1////	}					<del></del>	.1		D. 11	#0	
	56	1///	į					1		į	Pull		58.5'
		1///	į					i	Í				Rec 3.7'
	_	1.7./							i	J-12	CG	יט.ע וד ח	VEC 2.1.
		1././/						123		- · <b>-</b>		/	
		(///						. 123	1				
	-0	1////						i		!			
	58	////						:					
	-	1/1/0						<b></b>	<del>,</del>	L			
		1././/						i			Pull		
		1././.							1		<b>58</b> .5	' to	61.51
	-	1////						1			Run	3.0'	Rec 3.01
	60	<b>9/9/</b>			-								
	~ •	1//						100	вох				
		1/.//							4				
		1././							i				
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	<i>*///</i> 2	100	• '	ر, ر	D., 11	11	Continue						
1	62 .	1/1/6									<del></del>	* 1.1	
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DRILLING	LOG	(Cont S	iheet) <sup>t</sup>	EVATION TOP OF HOL	ໍ່ 68.6			Но	le No. 6	2	
ROJECT					INSTALLATION					SHEET 4	
Coop	er Ri	ver Red				tephen,	5.U.	·	REMA	OF 6 SHEETS	$\dashv$
ELEVATION	DEPTH	LEGEND		CLASSIFICATION OF (Description		ERY	BOX OR SAMPLE NO.	(Dr	illing time, wa eathering, etc.,	ter loss, depth of	
<u>^</u> .~	62 b c d Sand-Dark gray, fine grained with clay la	interbedde		BOX 4		Pull #1 61.5' t Run 3.0	1 o 64.5' ' Rec 3.0'				
İ	64				100	+					
	- -								Pull #1 64.5' to	2	
	66				100		J- 14		Rec 3.0'		
	-					BOX 5					
;   	68					)		Pull #1 67.5' to	70.5'		
						Run 3.0 CL 0.8	! Rec 2.2!				
7	70										
								Pull #1970.5 to Run 3.0			
	72					100		J-15		•	
										<del></del>	_
	74						вох		Pull #19 73.5 to Run 3.0		
	76				-	100	6				
	-						J- 16	Pull #10		-	
	78				·	100			76.51 to Run 3.0	79.5' Rec 3.0'	_
	• • • • • • • • • • • • • • • • • • •		Con	tinued on Sh	neet #5						
	-									152	ŀ

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RILLING	LOG	(Cont S	heet) ELEVATION TOP OF HOLE 68.6			Н	ole No. 62
DIECT			INSTALL	ATION			SHEET 5
Coope	er Riv	er Redi	version	St. Stephen,	S.C.		UF 6 SHEFTS
ROITAVE		LEGEND	CLASSIFICATION OF MATERI	ALS % CORE RECOVERY	BOX OR SAMPLE NO	(1)	REMARKS  relling time water los depth of a weathering ris at significant;
.i	,78 h		Sand-Dark gray, fine grain, interbedded with layers.	100 clay	• • • • •		Pull #16 Continued
	80		rayers.		:	<del>•</del>	Pull #17 79.5' to 82.5' Run 3.0' Rec 3.0'
	82			100		J-17	
	84			100	BOX 7		Pull #18 82.5' to 85.5' Run 3.0' Rec 3.0'
	86				-	J-18	
	83			53.3			CL 1.4'
	90			0.0			Pull #20 88.5' to 91.5' Run 3.0' Rec 0.0' CL 3.0'
<b>.</b> 6.	92		Shell Fragments TOP OF ROCK 92 2'		80X 8	<del>,</del>	Pull #21 91.5' to 94.5'
3.6			Shale-Dark gray, Medium hard, with some sands layers.	80.0 tone	: : :		Run 3.0' Rec 2.4'
	94		Continued on Sheet #	6	:		
					:		153

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RILLING	LOG	(Cont S	heet) ELEVATION TOP OF HOLE 68.6			H	ole No. 6	2
JECT			INSTALLATION					SHEET 6
Coo	per Ri	ver Re		Stephen,	S.C.		DEAL	OF 6 SHEETS
EVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	ERY	BOX OR SAMPLE NO.	(D	REMA rilling time, wa weathering, etc.,	iter loss, depth of
	946	С	<u>d</u>	e	f	<del></del>		<u> </u>
			Shale-Dark gray,			L	Pull #2	1
			medium hard,				Pull #2	2
			contains some				94.51 t	97.51
	-		sandstone layers	İ	вох		Run 3.0	Rec 2.41
	96			80	8		CL 0.6	1
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	-			İ		W-1	1	
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28.9			BOTTOM OF HOLE 97.5'					
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Hole No. SHEET 1 DIVISION INSTALLATION DRILLING LOG South Atlantic St. Stephen, S.C. OF 6 PROJECT 10. SIZE AND TYPE OF BIT 4" Square Auger, 6" Fisht. per River Rediversion 4x5' " Core BBL 1 378" ID Split OCATION (Coordinates or Station) MSL 12 MANUFACTURER'S DESIGNATION OF DRILL Split-Sta. 594+80, 250' Right of Centerline spoo CME - 75 Savannah District UNDISTURBED TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN HOLE NO. (As shown on drawing title and tile number) 63 14. TOTAL NUMBER CORE BOXES NAME OF DRILLER 15. ELEVATION GROUND WATER 48.2 T.W. Scott DIRECTION OF HOLE COMPLETED 16. DATE HOLE 8 May 75 9 May 75 17. ELEVATION TOP OF HOLE THICKNESS OF OVERBURDEN 82.11 18. TOTAL CORE RECOVERY FOR BORING DEPTH DRILLED INTO ROCK 2.91 19. SIGNATURE OF INSPECTOR Charles M. Deaver TOTAL CEPTH OF HOLE 85.01 CORE BOX OR SAMPLE NO. REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) CLASSIFICATION OF MATERIALS (Description) ELEVATION DEPTH LEGEND 4" Square Auger SM-Sand, tan, fine J=Jar Sample J-1 ¥7.7 J-2 SM-Tan, sand, some clay pockets, 2.01 wet Date 8 May 75 Depth to water during drilling J-3 Fishtail SC-Tan and red. sandy clay, medium to fine sand Splitspoon at 10.01 Fishtail Continued on Sheet #2 BLOWS PER FOOT NOTE: Soils field classified Number required to drive in accordance with the Unified 1¾" ID srlitsroom w/140 Soil Classification System.

RILLING LOC	G (Cont !	Sheet) ELEVATION TOP OF HOLE 50.2			Hole No. 63	j
Differ		INSTALLATION				SHEET 2
Cooper	River Re	ediversion St. STe	phen, S.C.			OF 6 SHEETS
LEVATION DEPT	ri LEGEND	CLASSIFICATION OF MATERIALS Discription ,	% COPE BOX RECOV SAM ERY N	IPLE	REMA (Drilling time tra- tracathering etc.)	ter loss depth of if significant)
-12 <sup>b</sup>	70 TW	SC-Tan and red, sandy clay,	; c 1	*	1	Blows
	199	medium to fine sand			Fishtail	ļ
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7.2	17.7.7	SM-Gray, sand,				i I
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14		layers, dense				<b>.</b>
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ILLING	LOG	(Cont	Sheet)	50.2			Hole No. 63	
£ 1				INSTALLATION			SHEET 3	-
<u> 200561</u>	r Riv	er Red	iversion	St. St	tephen, '	<u>s.c.</u>	TOP 6 SHEET	· S
EVATION	DEPTH	LEGEND		TION OF MATERIALS Description)	∜ CORE RECOV I ERY	BOX OR-	REMARKS (Drilling time water in difth weathering etc. if swarbants	of.
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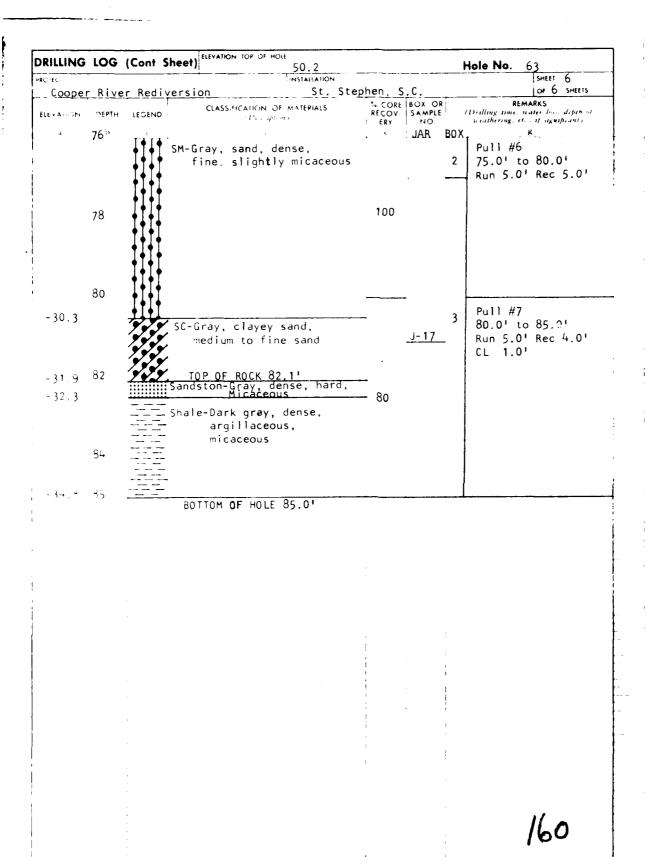
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RILLING	LOG	(Cont	Sheet) ELEVATION TOP OF HOLE 50.	Hole No. 63					
ROJECT	-		INSTALI				<u> </u>	SHEET 4	7
Cooper	River	Rediv		St. Stephen, S	S.C.			OF 6 SHEETS	
LEVATION		LEGEND	CLASSIFICATION OF MATER	IALS % CORE	BOX OR SAMPLE NO		REMA (Drilling time, ua ueathering, ch.,	iter loss, depth of	
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ILLING LOG	(Cont S	heet)	50.2			Hole	No. 63	
LE 1			INSTALLATION				SHEET 5	
<u>Cooper Riv</u>	<u>er Redi</u>		St. Ste	pnen, S	LL.		REMARKS	·
EVATION DEPTH	LEGEND	CLASSIFI	CATION OF MATERIALS - Descriptions	RECOV	E BOX OR SAMPLE NO	(Dullin	g time water los depots	1
444b	1.3.1		<u>d</u>		JAR .		K	
,	1111	SM-Gray, s	and, dense,			Pil	1 #3	
	ItIt	fine, s	lightly micaceous			50.	01 to 65.01	
•	III						5.01 Rec 4.01   1.01	
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DRILLING LOG	DIVISION	INSTALL				SHEET 1
PROJECT	South Atlantic		. <u>Step</u>			ger > 4x5 511 (
	limaina				N SHOWN (TBM or MS	
Cooper River Rec	Station)	<b></b> ∤				901
Sta597+10, Co		12 MANU	FACTURE	R'S DESI	GNATION OF DRILL	
DRILLING AGENCY			15-45			
Savannah Distric		13 101	L NO OF	OVER-	SUTURBER EN 23 SUUS	UNDISTURBED
and file number)	awing title: 64				21 Jurs	
NAME OF DRILLER		14 TOT	L NUMBE	RCORE	BOXES 1	
T.W. Scott		15 ELEV	ATION GE	ROUND W	ATER 53.1	
DIRECTION OF HOLE		16 DATE	HOLE			COMPLETED
VERTICAL TINCLIN	ED DEG. FROM VERT			- 2	1:9-72	_ 9 <u>519</u> -7 <u>9</u>
THICKNESS OF OVERBUR	DEN 81.0'	17 ELEV	ATION TO	P OF HO	LE <u>54.1</u>	
		L			Y FOR BORING	원 <u>선 <b>%</b></u>
DEPTH DRILLED INTO RO			ATURE OF			
TOTAL DEPTH OF HOLE	85.61	1 (	varles		<del>,                                    </del>	
LEVATION DEPTH LEGE	ND CLASSIFICATION OF MATER (Description)	IALS	% CORE RECOV- ERY	SAMPLE	□ 'Drilling time, we	ARKS ateriose, depth of
0 h c	d		ERY •	B.W	weathering, etc	: , if eignificent
-111	SM-Sand, tan, tine, o	visi			Pull #1	<u></u>
[ -]♦[♦	I				0.01	3 51
	T			]	1	3.0 <b>!</b>
-= \ <b>+</b>	<b>†</b>				1 1 '	SIFICATION
	<b>†</b> ]		100	1	Sol. ELE	
j <sub>2</sub> - ↑↓↑	<b>↓</b>		100	1	E-2 47.1	
□ 1 1	1			ļ	B-4 40.1	-
- 1 :d∳I∳	I			İ	B-6 29.1	•
	7			į	B-384 40.	1-47.1 50
	<b>†</b> 1				Pull #2	
I∳I	<b>†</b> }			}	3.0' to	6 NI
↑↓↑	↓				1 1 -	- Kec 3.0'
<b></b> ↑ _ ↑						SIFICATION
	I		100		Sol. ELE	
	<b>T</b> {			2	A	7.1-23.1 ML
	•			) 	10 00 00 10 17	1.1-17.1 ML
	•			ł	1 1	1-10.1 SM
k -	•		MC		1 10-13-14	7.1-10.1 311
	I }		15.47 100		Pull #3	
ا ۱۰۶،۶۰ ا کیلی	<u> </u>		100	[	3 6.6 10	7 0 1
7	SC-Sand, tan, clayey.			1	1 1	Rec 1.0!
<b>7</b> , <b>7</b> , <b>7</b> , <b>7</b> , <b>7</b> , <b>7</b> , <b>7</b> , <b>7</b> ,	qrades to a sandy	clay			Pull 24	
7.59			MC		7.01 15	16 01
18	<b>.</b>			_		3.01
1.29	Some gravel below 8.0	r	17.3%	3	1 1	STELLATION -
	<b>9</b> /				Spl. Hi	
	<b>&gt;</b> 1		100		B-14 .1	
7997	<b>2</b>			1		F=
199					1 1	
10	<b>Z</b>			j	PH B-27 -18.	()
10		•			Coll #5	
·	•		MC		10.01	13 61
-\ <b>\^2</b> 9	<b>9</b> /		44.4	1		- n - 3,01
You	<b>∳</b> ∤		100	: 4	[ ]	٠.٠ ٫٠
1979	<b>9</b> 1				1	
	<b>9</b> 4	ĺ			1	
, 1 -12 - <del>L</del>	Continued on Fret #	<del>.</del> — †	<u>-</u>		4 - <del>4</del>	
1	NOTE: Soils field clas			-	3 22	R TOOR
1	in accompance with the	- United		₩:	aricuer redaire	d to drive
	Soil Clairiffeath a F.				P all Britten	000 m/340 mm
<u>.</u>	The second secon	- 1	110	∣ hu	www.er felling	705
		,	101		TH. (177	99"•

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(A)

RILLING	roc	(Cont !	Sheet) ELEVATION TOP OF HOLE 54.1	Hole No. 64				
OJECT			INSTALLATION	ephen S	S (		SHEET 2	
Loope	er Kive	er Kedi	CLASSIFICATION OF MATERIALS	, % CORE	BOX OR	<u>.</u>	REMARKS	
LEVATION	DEPTH	LEGEND	(Description)	RECOV	SAMPLE	,	(Prilling time, water los depth of uesthering, etc., if significant)	
	12 b	·	<u>d</u>	· · · · ·	. 1	JAR	<u> </u>	
	! -		SC-Sand, Red and tan,		L <sub>t</sub>		Pu11 #5	
	-	///	clayey sand, fine, dense		-1	5		
	· -	777		<del>,</del>	<b></b>	•	Pull #6	
							13.0' to 16.0'	
	14	777			· NI.		Run 3.0' Rec 0.0'	
		7,7	1	0	No Spl.	!	CL 0.0'	
	-			Ū	υ <b>ρ</b> ι.			
	1 _	1777	1					
	16				:			
	10	199			<del></del>	•	Drive, #1	
	-						3" 19 Splitspoon	
		///					16.0' to 17.7'	
	-	1999				6	Blows 63-(16.0' to 17.0') 100-(17.0' to	
	18		7 4		:		17.71)	
		///			:		Pull #7	
	-				5	!	17.7' to 21.0' Run 3.3' Rec 3.3'	
		////		1	i		Null 5.5" Nec 5.5"	
	-	75.5		100	i i			
341	20	777			1	7		
		////	Sand-Dark gray, dense.					
	-	1././/	Argillaceous, with clay layers, slightly		ĺ			
		1///	micaceous				Pull #8	
		1././					21.01 to 24.01	
	22	///	1				Run 3.0' Rec 3.0'	
	_	1///		100	1			
		1./9/9		100	6			
	-			, WC				
	24	1././		45.5%				
		1///		<del> </del>	• <del>-</del>		Pull #9	
	-	\././,	1	1			24.0' to 27.0'	
		9/9/9	4	:	:	8	Run 3.0' Rec 3.0'	
		<b>!///</b>	4	100	7			
	26	1.///	1	103	,			
		1///	4		ı			
		1././.	1					
		1///	4 4	-	<del></del>	1	Pull #10	
	28 Continued on Sheet #3		. 8		Continued			
		<del></del>		<b>⊢</b> ¹				
		1	· ·			,		
							. A .	
	1	1					162	
	4					10~		

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DRILLING	LOG	(Cont Shee	T) ELEVATION TOP OF HOLE	54.1			ŀ	Hole No. 64	
PROTECT				INSTALLATION		с <i>с</i>		SHEFT 3	
ELEVATION	DEPTH	er Rediver	CLASSIFICATION OF Description	MATERIALS	RECOV ERY	BOX OF SAMPLE NO	f	REMARKS Disiling time water los depth of ueathering et al significants	1
æ ,	28 հ		Sand, dark gra Argillaceous, layers, slight micaceous	with clay	100	. '	, JAR	Pull #10 27.0' to 30.0' Run 3.0' Rec 3.0'	- k
	30						- <u>9</u>	Pull #11 30.0' to 33.0' Run 3.0' Rec 3.0'	
	32				100	9			
	34				мс 19.6% 100	10	_10	Pull #12 33.0' to 36.0' Run 3.0' Rec 3 0'	
	<b>3</b> 6						-	Pull #13 36.0' to 39.0' Run 3.0' Rec 3.0'	
	38				100	11	-	Poll #14	
	£+0				MC 41.0% 100	12	11	39.0' to 43.0'	
	42	C 1	lay % decreases	below 42.0	(				
	44/4		Continued on So		<u></u>	13		Pull #15 Continued	
			concernation on sm	CCC*				163	

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	(Cont 3r	neet) ELEVATION TOP OF HOLE 54.1		Hole No. 64					
Cooper Ri		INSTALLATION	00000				SHEET 4		
cooper Ki	ver keu	CLASSIFICATION OF MATERIALS	ephen, S			ŔĖMA	<u> </u>		
EVATION DEPTH	LEGEND	Design :	RECEIP S	A MPLE		D think time to			
44 b	11.77			•	JAR				
	1/.//.	Sand-Dark gray, dense,				Pull #15	1		
	1///	Argillaceous, with clay layers, slightly	100	1.2	12	43.0' to Run 3.0'			
	////	micaceous		' )	14_	Rail 3.0	NEC 3.0		
	1///		MC 20.5%						
46	1///				-				
	1///					Pull #16 46.01 to	40.01		
	1///					Run 3.01			
	1///					1	•		
48	1///		100	14					
40	1/1/4								
	1./1/		MC 82.3%						
	1/1/4				-	<u> </u>	<del></del>		
	1././					Pull #17 49.0' to	E2 01		
50	////				13	J			
-	1././					CL 0.51			
	9/9/%		83	15					
	1././.								
	1./9/1								
52	////								
	1/.//					Pull #18	cc 01		
	1///					52.0' to Run 3.0'			
FO! 1	+   +	<b>Sand</b> -Dark gray, saturated,	•			CL 1.0'	1100 2.0		
<b>5</b> l	<b>†</b>   †	(SM) dense, micaceous	66	16					
54	ψΙψΙ								
	: <b>† I † I</b>								
	┊┪┇┪┇				14				
	1111					Pull # <b>19</b> 55.0' to	£8 01		
56	Ţ∳Ĭ∳					Run 3.0'			
-	∶┇┪┇┪					CL 1.5'			
	: <b>[</b> † <b>[</b> †		50	17					
	┊┇╅┇╅	Black organic material relow							
		57.0'			:				
58 .	<b>           </b>				15				
	+1+1					Pull #20	61 01		
	∶∳┇∳┇					58.0' to Run 3.0'	8ec 1 5		
	┊┪┇┪┇		50	18		CL 1.5'			
(0	<b>  1   1</b>								
60 -	▄▃▙▝▕▃ <del>▘</del> ┆	Continued on Sheet #5			4	<u> </u>			
	•	,							
						16	ıl.		
						///	<b>T</b>		

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ILLING L	OG	Cont	Sheet) ELEVATION TOP OF HOLE 54.1 Hole No. 64					
et C *			INSTALLATION				SHEET 5	
Looper	<u>Kive</u>	er Red	iversion St. St			<b></b>	OF 6 SHEETS	_
VATION . [		LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOV ERY	BOX OR SAMPLE NO		REMARKS Dealing time water too depth of a conferring etc. it significants	
, j	οь		·	, e	. 1 -	JAF.	Poll #20	
1	-		Sand-Dark gray, saturated,		18		Continued	
		111	SM) dense, with organic			• • (	l .	
		4141	material(silty) below 57.0' to 62.0'		<del></del>	16	Pull #21	
:		1 1 1 1	Lignite fragments at 61.01				61.0' to 64.0'	
6	2	1414	1				Run 3.01 Rec 1.51	
		ItIt	1	50	19		CL 1.5'	
		] + ] +	:			1		
		T + T +				!		
		1+1+	Some clay pockets below 63.0'		:			
n <sup>‡</sup>		1111			!	17		
		1				1	Pull #22	
		+ 1 + 1	} :		1		64.0' to 67.0'	
		<b>†</b> ] <b>†</b> ]		: I	i	i	Run 3.0' Rec 3.0'	
	-	<b>†</b> ] <b>†</b> ]	i	100	20	:		
-6(						!		
0;	ر:					:		
	•	<b>†</b> ] <b>†</b> ]	Í		ĺ			
		\ I \ I	i		ļ	_		
		•I•I	1	:	1	i	Pull #23	
1	is .	<b>†</b> [ <b>†</b> ]		1	1	:	67.0' tc 72.0'	
:61	5 <u>.</u>	• ] • ]				ĺ	Run 5.0' Rec 5.0'	
+	-	<b>                                     </b>	Contains some gravel below		1			
!	-	1111	68.01. White to black. Quartz. well rounded.	1	!			
i		1111	Quartz, well rounded.	Í	4			
	1	1111	İ	100	21			
70	0	1414	1		- · 1	18		
	1	<b>Ĭ</b> ∳Ĭ∳		ŧ	1	:		
	- 1	<b>[</b>		1	; ;	!		
!		I † I †		1	1	ļ :		
	- 1	I † I •	į	i !				
72	2	Idle		! <b></b>	· 	•		
		I † I †			1		Pi-11 #24	
1	į	I + I +				1	72.01 to 77.01 Run 5.01 Rec 5.01	
	- ]	III					Nun 5.0' Kec 5.0'	
1	.]	111		!	·			
7:		111		! ! 100	. 25			
. /		1111	1	100	22	ı		
	,	111	{ !		1	}		ĺ
	į	111	!		:	19		
	1	+1+1		<u>}</u>		i i		
. 7.		<b>†</b> [ <b>†</b> ]	1	i I				
: /t	·/		Continued on Sheet #6	;	•			_
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			1 1 1	į I			1/ _	
	<b>!</b>		İ	i			165	
			1					

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		(Conr	Sheet) ELEVATION TOP OF HOLE			l	Hole No. <u>6</u> 4		
ROJECT			destruction of					SHEET 6	
сооре	KIVE	i vear	CLASSIFICATION OF MATERIALS	ojjegnejn - % core		i.	REMA	OF 6 SHEETS	
ELEVATION	DEPTH	LEGEND	Description		IS AMPLE	*	Delling time, us	iter land depth of	
_ a	76 b	L	d	· ·	,	JA.is		1	
	1	1414	Sand-Dark gray, dense,		,		Pull #24		
		7111	(SM) saturated, some clay		2.3		Lont inued	1	
	1	+1+1	pockets and Quartz				Jonethaec		
	-	↓∳I∳I	gravels at various				Pull #25		
	!		intervals below 68.01				77.0' to	82.01	
	78	┧ <b>┩</b> ͳ∳ͳ	* T				Run 5.01		
	1	74747							1
	-	11111	Sand-Dark gray, silty,		2.3	20			- 1
		11+1+	with loose shell		. ,		1		
		1111	fragments, dense	100					
-25.9	80	1414		_		21			ļ
	: -		CL- Dark gray, silty clay						
	i	<i>\///</i>	dense, micaceous,						
-26.9		Y././	slightly calcareous	.:					1
-	-		TOP OF ROCK 81.01						-
	100		'Sandstone-Gray, hard, dense.						
	82		Argillaceous	h	-	,			ᅱ
-0 -	! =		L		i	!	Pull #26		
-28.5			Shale-Dense, dark gray.			WAX			
		1==	Argillaceous, micaceou	s		1	Run 3.61	Rec 3.61	ļ
					BUA				
	84		Sandstone seam at 83.61	100	BOX 1				- 1
		===	i		. 1		ı		ı
					ļ.				-
		<del></del>	Sandstone-Hard, dense.		!				
-31.5	85.6		Argillaceous						ł
11.5	- ۲۰۰۰	1	BOTTOM OF HOLE 85.61		1				7
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								Hole No. も5
DRILLI	NC LO		VISION	INSTALL			^	SHEET 1
PROJECT		<u> </u>	South Atlantic		Stephe			of 7 SHEETS Signal Core Bil
	e1	· Warell	voreion	11. DAT	JM FOR EL	EVATION	5HO	WN (TBM or MSL)
EDTATION /	Coordin	etee or Sta	ation)	MSL				
URILLING A	97+10.	400'	Left of Centerline			R'S DESI	GNAT	TON OF DRILL
5 1, 1 10°					- 75	21/55		ISTURBED UNDISTURBED
HOLE NO /	As show	on drawi		BUR	AL NO. OF DEN SAMPI	ES TAKE	N	30 2
NAME OF D			65	14 ТОТ	AL NUMBE	R CORE E	OXE	s 8
T.W. Sc				15. ELE	VATION GE	ROUND WA	TER	53.1
OFFECTION	OF HOL		· · · · · · · · · · · · · · · · · · ·	15 DAT	E HOLF	15TA		D   COMPLETED
X YERTIC	AL	NCLINED	DEG. FROM VE					<u>-753-24-75</u>
HICKNESS	OF OVE	RBURDE	N 94.0'	<b>├</b>	VATION TO			70 6 R BORING 85
LEPTH ORI	LLED IN	TO ROCK	4.0'	1	AL CORE F			H BORING 05
TOTAL DEP	TH OF	HOLE	98.01		rles M.			
FLATION	DEPTH	LEGEND	CLASSIFICATION OF MATI	ERIALS	CORE	BOX OR SAMPLE NO	'I	REMARKS Prilling time, water loss, depth of weathering, etc., if significant)
	û <u>b</u>	с	d			1	JAR	9
	_		SP-Sand, Tan, loose				1	Puils of one toot
•	=	777	CL-Tan and red,		1	! !		Intervals using
			sandy clay				2	4" Square Auger
1			<b></b>				1	for jar samples
	2		Tan and red,		ì	Ì	1	were taken from
	-		silty clay					0.0' to 28.0'.
	-		1			ļ		
			1		Ì	}		<u>.</u>
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•	-						5	
			ML-Sand, fine, silty				7	ł
	·		Tan to red		100			
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	10						6	
	-			_				
•			CL-Tan and red.	<del></del>			ĺ	
	-		silt, clay, bande	rt.		! !	1	
	12 =		<del> </del>		<u> </u>	<del></del>	<del> </del>	1
			Continued on Sheet				i I •	BLOWS PER FOOT:
		 	NOTE: Soils field cla	ខន់ដៅ ខែវ			m) ,	r required t drive
		ŀ	in accordance with th	a Halflad	1	1 14	j., ,	1 44
			Soil Classification S	e car in	ŀ	i i		Logistarech w/140 lb. rialling 30%.

DRILLING	LOG	(Cont	Sheet)	ELEVATION TOP OF HIGH			Hole N	lo. 65	
PROJECT				نيك هيئيم إنهن				SHEET	1
Соор	er Riv	ver Red	livers	ion \$1. 1.	1				SHEETS
ELEVATION	DEPTH	LEGEND	}	CLASSIFICATION OF MATERIALS	CO3E	The delta	Deilling	REMARKS time water loss time water loss time of its signi	depth of
	12 b	c		d	15		7A8	K	
	145	1//	<del>∤</del> п	· · · • • • • • • • • • • • • • • • • •			1		
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			<i>)</i>						
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	14	-///	<b>4</b>				)		
			<b>}</b>						
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			1						,
	16		<b>/</b>						
	1	1///	7						
	1	7///	<i>\</i>			1	,		
•		-///	SC-S	Sand, tan and real,					
	1			·layey, roles			9		BLOWS
	18 _	799							
					:	‡			
	_						İ		10
					:		10		10
	20 _					Ì			
•		- 11	SM-	Sand, tan,	1	i			
				with some clay sears.	:	1			29
	-	┪╻┪	•	wet	1	1	11		2)
		<b>∃ I†I</b>	•						
	22	╛┇┪	•		:	•			
	1	▝▋▍▍	Som	e gravel below 22 01	;	1	12		32
		<b>≒</b>	1		İ				
	-	~	1			:			
	!	-1414				•			7.0
	24 -	╌┋┥┇┥	I		1		13		70
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ì					1		14		53
	26	╡┇╅┇	$\downarrow$		i				
· ·	120	-1//	CL-	Clay, silty,					
		1//		tan and red	•	•			34
	1	1./.	-	d-Dank gray, dece	•		16		, T
1	i	10/1	San	debank gray, been with classical					
	28	1/2/9	9				16 ]		1.06
]			Lo	ntinued on Streets					
1		#			:				12
ĺ					4		:		68
}	}	j	}				í		
		1	i				• • •		

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DRILLING	LOG	(Cont	Sheet)	ELEVATION TO F		)			۲	fole No	_
in a supremp	٠,١,٠	r Redi	versio	on		St. Step	hen, S.	<u>C</u>		715	
tits af t N	DEPTH	LEGEND		CLASSIFICATI	ION OF MAT	TERIA! S	% CORE	SAMEL	F	REMARK  Property of the Control of t	
١.	28h	ر ح مرا	<b>,</b>		d			1		<b>*</b> .	
			, Sand / /	-Dark gr with cl	ay, den ay laye		83			P.(1 #1 28.01 to 31.01 Fam 3.01 Rec 2.51 Fig. 6.51	
	30						٥				
							<u></u>	1	17	Poll ≈2 31.0° to 34-0°	-
	32						90			Kur 3.01 Kes 2.71 CL J.31	
	34									Poll #3 34.01 t / 37.01	
							100			Run 3.01 Fcc 3.01	
	30									; !	
	38						:		18	Pull #4 37.0' to 40.0' Rom 3.0' Rec 1.7' Ci 1.3'	
							56		T		ļ
	-Ö							2		Pull #5 40.01 to 42.61 #6.05 to 1860 0.61	-
	440°						100		19		
							91			P.11 # 42.61 f. 47.01 B n 4.01 m - 4.01 C1 - 5.01	
		4-	Cor	ntinued	or Sceet	t #4				169	

Q

JECT	LOG	(Cont S	heet) ELEVATION TOP OF HOLE 70.6			Hole No. 65				
	r Rive	r Rediv	version (	st. Stepher	n, :	S.C.		1 <b>5нее:</b> <u>4</u> 104- <b>7</b> 5нозб		
EVATION	DEPTH	LEGEND	CLASSIFICATION OF ANATERIAL (Description)	IS REC	ORE OV:	BOX OF		REMARKS (Dealling time water loss defines		
4	44ь.	<u> </u>	d	1 ER		NO ,	JAR	weathering etc. it signification of grant and		
		1//	Sand-Dark gray, dense.		i	•	20	Pull #6		
		1///	with fissile beda clay layers, slig			2 .	20	Continued		
		9/9/9/	micaceous			ε :	- • ··			
	46	///		91		1				
	40	1///			į	1				
		1/9/		•	•					
		1//					21	Pull #7		
	48	1///						47.01 10.50.01		
	40	///						Ran 3.01 R		
		1/.//		\$11						
		1///	•							
	c 0	1///								
	50	///				3		Patt "H		
		///						50.01 %		
		///						Run 3.01 ker - 21 01 0 71		
	52	////		76						
	57						77			
		///								
		///		*····	-			Pull 29		
		////						53.01 to 57.		
	54	////						Min alo. en .		
		////								
				100	n .	-				
	56	///								
	ا ر	////								
		////				1,				
	!	///		<b></b>			3	Pull #10		
	58	////					ļ	57.01 to 61.01 Run 4.01 Fec 2.11		
		///					-	CL 1.61		
		///		ωí,	,	•				
	,	///								
	50	///								
			Continued on Siec #5				-	· <del>-</del> · · · ·		
	•				1					
	:							<i>[](</i> )		
	•							14~		

C

RILLING L	.OG (	Cont S	heet) Editation 102				Hole No. 📆 🛒 📖 👢				
ه ديمې د ي	? °yer	Rediv	ersion	NUTA, EATON St. St	ephen. S.	С,		7			
		COLUMN TO		FE TO MATERIALS	- € 3 -			FEWARES			
ijĊ	o`			sile bedded	60		JAR	Fall #10 Continued			
ħ?	2		clay lay slightly	ers. ∵micaceous	126	2 <b>.</b>	24	PULL #11 61.01 to 64.01 Run 3.01 Pec 3.51 66 - 0.81			
6 <i>t</i>	4						-	Pull =12			
<del>Ģ</del> é					100			66.01   66.57.01   Fun 3.01   Rec 3.01			
<u>.</u> 66	2 2 3					5	?5	Pull #13 67.01 to 70.01 Run 3.01 Rec 3.01			
•			SC-Sand, dark clayev, wi fragments	gray, dense, th shell	100		26				
70	0 .		NOTE: Lost wat Regained	er at 70.0' at 77.0'				Pull #14 70.01 to 73.01 Run 3.01 Rec 3.01			
					100		27				
;				saturated same shell fragme		ry.	28	Pull 515 73.0¹ 15 77 0¹ Run → 0¹ Rus 2.6¹ CL 2.0¹			
	ر ب		 .ontinued ar	Sistematica		·					

DRILLING	LOG	(Cont SI	heet) [EL	VATION TOP OF HOLE 70.6				ŀ	iole No.	65
ROJECT				INSTALLAT	ION			_		SHEET (
Cooper	River	Redive			t. Steph	en, S	.C.			Lor 7 Sete
ELEVATION	DEPTH	LEGEND	(	LASSIFICATION OF MATERIAL (Description)	s	% CORE RECOV ERY	BOX OR SAMPLE NO.	,	REA Deilling time : weathering er	AARKS A TRAFFIL OF STATE OF THE
. <b>a</b> :	. 76 <sup>b</sup>		wit	d de la company		۰ <b>۴</b> 50	<b>f</b>	JAR	Pull #1 Continu	
:	78		NOTE:	80.0' Lost water at 70.0' Regained at 77.0'	ייס	<u></u>	:			80.01 Rec 2.01
! !	- - - 				:	66	! ! 6	28	CL 1.0	
! ! !	80				-	<del>,</del>			Pull #1 80,0' to Run 3.0	7 5 83.0' 1 Rec 1.3'
: !	82 —				:	43		29	CL 1.7	
	84								Pull #18 83.0' to Run 3.0	3 5 86.01 1 Rec 3.01
						100 -				
! !	86						7	30	Pull #19 86.0' to Run 3.0 CG 1.0	89.0' Rec 4.0'
 	88					133				
	90								Pull #20 89.01 to Run 5.0 CL <b>2</b> .5	5 94.0' ' Rec 2.5'
;	30					50	8			
	92 -	- <del> </del>	Cont	nued on Sheet #7						
	-				!					172

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DRILLING	LOG	(Cont	Sheet), ECEVATION TOP OF	70.6			ł	Hole No.
e speci	sive	ir Rea	iversion		<u>Stephen</u> .	S.E.		
1	APT	HOENI	CLASSIFICATION C		© CORE RECOV ERY	BUT OF SAMPLE NO		Section 2016 (First Form of the Control of the Cont
	920					. 1	WAX	( ن
:			SC-Dark gray samulate with loose state 80.0'					P.11 -20 Continued
•	ğш		NOTE:Lost water Regained at		<u> </u>			
			Sandstone-Gray, argillaceou			8	WAX	Pull H01 94.01 to 94.01 Run H.01 Feb 3 51 CL   0.51
	95		Shale-Dark gray bedded, d micaceous		87		2	
·	44							
		•	BOTTOM OF HOLE	98.01				

DBILLING LOC	DIVISION	INS		ATION				SHEET	1
DRILLING LOG	South Atlantic		St	. Steph	ien. S.	С.		OF '	SHEETS
1. PROJECT	instin	10.	SIZE	AND TYP	E OF BIT	1 3	/8" ID SOLL	سنستهد	
Cooper River Red 2. LOCATION (Coordinates of	r Station	''`	MS		LEVATIO	* 5HC	,	`ore Tisht	*
Sta. 597+10, 400	1 Bight of Centerline	12			ER'S DESI	GNA	TION OF DRILL	1300	
3. DRILLING AGENCY		7	_	E- 75		- • • • •			
Savannan Distric		13.	TOT	AL NO. OF DEN SAMP	OVER-	:		UNDIST	/H 6+ 1
and file number	rawing title!	<u> </u>					19 Jars		
S. NAME OF DRILLER				AL NUMBE					,
T.W. Scott		15.	ELE	VATION G	ROUND W	ATER	45.4 (50.	T 25.1	
6. DIRECTION OF HOLE		16	DAT	E HOLE	15T/	RTE	:	MPLETE	
VERTICAL _ INCLIN	NED DEG. FROM VER						<u> 19-75 : </u>	<del>-4-</del> 30	- 4
7 THICKNESS OF OVERBUR	DEN 84 51	<u> </u>		VATION TO			53.4		
& DEPTH DRILLED INTO RE		-		AL CORE P			R BORING		
9. TOTAL DEPTH OF HOLE	85.51	19.		ATURE OF arles M					
	1		Unic				DEMAG	~ · · · · · · · · · · · · · · · · · · ·	
ELEVATION DEPTH LEGE	CLASSIFICATION OF MATER (Description)	RIALS		RECOV- ERY	BOX OR SAMPLE NO.	(1	REMAR Prilling time, water weathering, etc., i	riose, d	epth or canto
- 1717	SM-Sand. Tan fine					Ĵ.	40 Square		
□ □   1	with some organic				l		used to 1		
	naterial					1			
	T								
	,↑					1			
2 - ]	•			ĺ	j	ĺ	j		
	•				l		W.T. 2.	5!	
<b></b>	' ♦				l		Date 4-19	- 75	
	<del></del>			ļ	}				-
	CL -Sandy clay,				ļ	ł	Depth to v	vasto. L	
7//	Tan and red					ŀ	dui 1195		
	$\bowtie$						}		
							}		
-//						3			
							1		
							NOTE: Wate	r Lab	1 -
							(insitu)		
	/						8.0' on pe		
							of drill		
• -	<b>/</b>					4			
	SC-Clavey sand.						depth of :	2 51	1
	Tan, fine						approxi «n	el.	
							[		
-19/2	<b>9</b>						1		
7,	<b>&gt;</b>						}		
	<b>&gt;</b>			ſ					
	NOTE:LitHogy breaks a	250							
10	approximated,	316.				5			
-/9/9	• approximated,						Fishtail		
7	<b>9</b>		]				10.01 10	1	
	<b>&gt;</b> 1		į	}			1 10.0	13 6	
	<b>2</b>				İ				
	<b>Z</b> .								
1.5	<b>7</b> 4						<u> </u>		
·** •	continued on Sheet				{				
	- Note. Soils field clas				}				
	in accordance with the			1	İ			101	1
. 4	Seed Passification Sy	4 Ç Emi	.	1				174	<i>*</i>
: 4 : -4			- 1	1	1			,	

ORILLING LOG	(Cont SI	heet) ELEVATION 10 POP HOLE 53.4		Hole No. 14
* * *		INSTALLATION	tephen, S.C.	Section () And Section ()
CONTRACTOR OFFI		CLASSIFICATION OF MATERIALS  Description 1	CORE BOX OR	PEMARKS  From the same dates and dates to
a . 12 <sup>b</sup>		d	ERY NO	weathering etc. it wistly int.
. , .	IIII	SM-Sand, Ten and red,	,	listail
	ItIt	fine, with clay pockets		10.01 to 15.01
	: [†]†			
	∃ <b>Ĭ</b> † <b>Ĭ</b> †∵			
14.	1			
	: <b>† I † I</b>			
	·			Prive #1     15 01 to 15,51
1 (-	- † <b>.</b> † .			610ws: 40
·	1 1 1			
	1+1+			FISCH
	III			16 5' + 20 0'
	∷I∳I∳			
1 %	┊┆┆┆┆			
	+ 1 + 1			
•				
.20	7///	Sand-Gr <b>a</b> y, dense,		
. 0	1///	argillaceous, interbedded with clay		Drive #2
	1///	layers		7 20.0' 10 21 5'
	1/1/1			Blows: 09
	1///			Fishtail
27	1///			21.5' to 25.0'
	1/1/			
	1///			
	9/9/			
*	1/././			
	9/1//			
	1///			
	9/9//			Delin #3-25 01 F
	1/1//			25.41-910ws: 100 10,4
£1	1/1/1/			February
	1///			25.41 - 30.61
	1/1/1.			
	1/1//			
	1/1/1/.			
	,	Continued on Secret 23		
				å a
	•			175

Cooper River Rediversion St. Stephen, S.C. 100 Cooper River Rediversion St. St. Stephen, S.C. 100 Cooper River Rediversion St. St. Stephen, S.C. 100 Cooper River Rediversion St. St. Stephen, S.C. 100 Cooper River Rediversion St. St. Stephen, S.C. 100 Cooper River Rediversion St. St. Stephen, S.C. 100 Cooper River Rediversion St. St. Stephen, S.C. 100 Cooper Rediversion St. St. Stephen, S.C. 100 Cooper Rediversion St. St. Stephen, S.C. 100 Cooper Rediversion St. St. St. St. St. St. St. St. St. St.	RILLING	LOG	(Cont	Sheet) ELEVATION TOP OF HOLE 53.4		Hole No. 66
Sand-Gray, dense, argillaceous, interbedded with clay layers	0.1.			NSTALLATION	appen C C	Set ( 3
28h  Sand-Gray, dense, argillaceous, interbedded with clay layers  30  30  Drive #4 30.0' to 31.5' Blows: 98  Fishtail 31.5' to 35.0'  Drive #5 35.0' to 36.5' Blows: 59  Fishtail 36.5' to 40.0' to 41.5' Blows: 96  Drive #6 40.0' to 41.5' Blows: 96  Fishtail	Looper	Ki∨€	r Redi	<del></del>		TOLD THE
Sand-Gray, dense, argillaceous, interbedded with clay layers  30  Drive #4 30.0' to 31.5' Blows: 98  Fishtail 31.5' to 35.0'  Drive #5 35.0' to 36.5' Blows: 59  Fishtail 36.5' to 40.0' to 41.5' Blows: 96  Drive #6 40.0' to 41.5' Blows: 96			LE ⊅F14D		RECOV , SAMPLE	Same of the Contract of the Co
argillaceous, interbedded with clay  30  31  32  33  34  36  37  38  38  39  30  30  30  30  30  30  30  30  30		40"	1./1/	Sand-Gray. dense.	J'	[Fishtail
9 Drive #4 30.0' to 31.5' Blows: 98  Fishtail 31.5' to 35.0'  Drive #5 35.0' to 36.5' Blows: 59  Fishtail 36.5' to 40.0'  Drive #6 40.0' to 41.5' Blows: 96  Fishtail				argillaceous, interbedded with clay		
30  30  Drive #5 35.0' to 36.5' Blows: 59  Fishtail 36.5' to 40.0'  Drive #6 40.0' to 41.5' Blows: 96  Fishtail		30		•	9	30.01 to 31.51
31 5' to 35.0'  Drive #5 35.0' to 36.5' Blows: 59  Fishtail 36.5' to 40.0'  Drive #6 40.0' to 41.5' Blows: 96  Fishtail				•		
Drive #5 35.0' to 36.5' Blows: 59  Fishtail 36.5' to 40.0'  Drive #6 40.0' to 41.5' Blows: 96  Fishtail		32				
35.0' to 36.5' Blows: 59  Fishtail 36.5' to 40.0'  Drive #6 40.0' to 41.5' Blows: 96  Fishtail		34				
36.5' to 40 0'  Drive #6 40.0' to 41.5' Blows: 96  Fishtail		36			10	35.01 10 36 51
Drive #6 40.0' to 41.5' Blows: 96  Fishtail		<b>3</b> 8 '		•		
Drive #6 40.0' to 41.5' Blows: 96  Fishtail		, .				
11 Blows: 96 Fishtail		40		•	,	
					11	ſ
Sand is slightly calcareous, 41.5' to 45.0' and contains some shell tragments in zone from 42.0' to 49.5'		42 .		fragments in zone from		Fishtail 41.5' to 45.0'
Continued on Speet #4		44.	1./2	Continued on Sheet #4	•··· ···• — ··••	
· · · · · · · · · · · · · · · · · · ·			•	Commence of States		

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DRILLING	LOG	(Cont	Sheet) ELEVATION	тор ог ноце 53.	4			Hole No. 125	
w				INSTALL	ATION			SMEET 44	
r Jije	r	er <u>Redi</u>	i <u>version</u>		t. Steph		BOX OR	REMARKS	$\dashv$
ELEVATION		LEGEND	CLASSIF	CATION OF MATERI	ALS	RECOV ERY	SAMPLE 1 NO	Dealling time water to detail of weathering et. it signali an.	
.4	7414 b	10/0/0/	. Jand-Gray	,d		. "		Fishtall	1
		1///	inte	rbedded with	clay			41 51 10 45.01	
		1////	r laye	r <b>s</b>				Drive #7	┪
		1././	<b>.</b> .					45 01 10 46 51	
	<b>F</b> 5	1///	·				12	blows: 109	
		1///	,					Fishtall	7
		19/9/9	, ,					46 5' 10 50.0'	
		1///	<u> </u>						
	<u>≈</u> 8	1./9/9	<b>/</b>						
		9/1/	/! /.						
		1/1/							
		1/9/9/	1						
!		1///		calcareous,					
	j, 0	1././	shell fra	gments from	42.01			Drive #8	-
i i		1/1/2	10 49.51					50.0' to 51.5'	
		1///	/· /-				13	Blows: 02	
		1././	4				: :		
	4.2	1///						Fishtail	
	*+Z	1///	Ĵ					51.51 to 55.01	
		1./0/9						71.5	
		1///	ار ا						
		1././.	1				1		
:	5 <u>4</u>	1./1/9	1						
	T-1	1///	1				1		
		1///	4		i				
1		1/9/1	1				1 · · · · · · · · · · · · · · · · · · ·		4
		1/./	1				1	Drive #9 55.01 to 50.51	1
	(, r)	1././	1		İ		12.	31 Blows: 30	
		1/9/9	1				1		
		1///						Fishtail	
•		1.1.	CH C I					56.51 10 60 01	
i		]		gray, dense, ted, non-cem	ont od				
	j.đ		, satura	cea, non-cem	CHECH .		i		- [
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DKILLING	LOG	(Com	Sheet) ELEVATION		53.4			- +	lole No.	66	
PROJECT					HSTALLATION		c (			SHEET 5	
Looper	<u> </u>	r Kedi	version			Stephen,	5, L. [BOX OF			EMARKS	
ELEVATION	GEPTH	LEGENE	CLASSIE	CATION OF Description		RECOV FRY	SAMPLE		Dealing time	water is defile in	
a ,(	6Q b	11111	. •	d			. J.			#10-60.01 to	
		<b>‡</b> ‡ <b>1</b> ‡1	SM-Sand,	ara,, sa	aturated,		<b>1</b> 5		urive :	#10-60.0° to Blows: 100/0	4
			dense						1	<u> </u>	
									Fishia		
									60 41	to 65 <b>0</b> '	
•	ت 2	[+]									
		† ] † ]						1			
		: <b>†</b> [ <b>†</b> ]	•					i			
	უ <b>4</b>	:	•								
•	<b>4</b>	: 1   1	•								
		: 1   1	•					!			
			•							11-65.01 :01	
		]   ]	•				16		65.61-B	lows: 100/0.	ا څ
	95	$I \neq I$	•						P <sub>0</sub> 11 #1		
		: I † I †	•				İ	1	65.51 t		
		111	•				1		Run 5 0	' Rec 5.0'	
		1 1	•								
		1111	•					1			
. (	8à	1414				100					
		! <b>         </b>	•			V	i I				ļ
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		] <b>  1   1</b>	<b>!</b>								
-	10	] <b> </b> [   ]									
·	70	╛ <b>∮</b> ┇∳┇	, ; ;			<u>C</u>	17				
			1				4	11			
		<b>         </b>	,			1		i I	Pull #2 70.51 to		ļ
		1949	. *				i	}		' Rec 0.0'	
-	72		,						C <b>L</b> 5.0		
,	,	]	· ·								
		]	1					1			
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	76 .	11919	Continued	I on She	ēt 1#61 - 1				Full. #3	Continuedd	
		•									
		1								178	
		1								1 1 54	

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CILLING	LOG	(Cont S	Sheet) ELEVATION TOP OF HOLE 53.4				Hole No. 56
Site			:NSTALLATION			-	SHEET Po
COOF	per Riv	er Red	iversion St.	Stephen			J. M. E. Smiths
EVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% CORE	BOX OF		REMARKS Drilling time water for defth of
		1	(Description)	ERY	NO		ueathering etc. if senitionic,
d	,76 h	1111	, <b>d</b> ,,		t t	.B0)	ζ,
		┧ <b>┩</b> ╏┩	SM-Sand, gray, saturated,		Ü		Pull #3
		Ì <b>┧</b> ┧∶	dense		1		75.5' 10 80 5'
		┨ <b>┥</b> ┨┥╏		;	1	ļ	Run 5.01 Rec 5.01
		11414					
	.78	1 1 1 1 1					
	, / 0	14141		100		1	1
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		1111					
		$I  ilde{I}$					1
	80	┊┦┿╏╅╎			18		
		1			10		
		<b>† [ † ]</b>			-		
		·∳Ĭ∳Ĭ					Pull #4
							80.51 10.85.51
•		┊┇┩┇┩┆					Run 5.01 Rec 2.51
	-82	Idld	SM-Sand, dark gray, dense,				CL 2.51
		1111	with shell fragments,		19		
		<b>! † ] † ]</b>	micaceous, calcareous			_	
		• I • I		50		2	
		: <b>                                    </b>		-			
		1111					
	34	[ † [ † '					
		∶Ⅰ♦Ⅰ♦	TOP OF ROCK 84.51				
•			Sandstone-Gray, dense, hard.	<del></del>	ı		
			calcareous, fractured	, 			
32.1	85.5		Shale-Dark gray, micaceous		l .		
			BOTTOM OF HOLE 85.5'				
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	•						179
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Hole No. 67

						Hole No. 67					
DRILLING LOG	DIVISION	INSTALL				SHEET 1					
1 PROJECT	South Atlantic	St. Stephen, S.C. OF 7 SHEETS  10. SIZE AND TYPE OF BIT Shelby Tube, $4X5\frac{1}{2}$ Core Bb									
Cooper River	Rediversion	11. DAT	M FOR EL	EVATION	SHOWN	(TBM or MSL) 4X5 2 Denn-					
2. LOCATION (Coordinates or	Station)	MSL SON 6"Fish									
Sta. 598 + 60	, 320' Left of <b>&amp;</b>	12 MAN	_	R'S DESIG	SNATIO	N OF DRILL					
Savannah Dist	rict	CME-75									
4. HOLE NO. (As shown on dr and file number)	ewing title	13 TOTAL NO. OF OVER- DISTURBED UNDISTURBED BURDEN SAMPLES TAKEN 43 11									
S. NAME OF DRILLER	67	14. TOTAL NUMBER CORE BOXES Q									
T.W. Scott		15 ELEV	ATION GR	ROUND WA	TER	+62.()					
DIRECTION OF HOLE		16 DATE	HOLE	! ST A	6-75	COMPLETED					
X VERTICAL INCLIN	DEG. FROM VERT.										
THICKNESS OF OVERBUR	DEN 88.0'	}	ATION TO			+63,4					
DEPTH DRILLED INTO RO		L	ATURE OF			BORING 94					
. TOTAL DEPTH OF HOLE	106.5'	1	les M								
ELEVATION DEPTH LEGE	CLASSIFICATION OF MATERIA			BOX OR SAMPLE NO.		REMARKS ling time, water loss, depth of					
а Оь с	(Description)		ERY	NO.	We	athering, etc., if mignificant					
	<u> </u>		100	<u> </u>		<u> </u>					
	SM-CL- Silty fine and silty clay,	sano	100	}	<b>J</b> -1						
<u> </u>	Tan and Orange					Push #1					
┆╴╛┪╏┥	I				<b>S-</b> 1	0.7' to 2.5'					
∃∳1∮	<b>                                     </b>		100			Run 1.8' Rec 1.8'					
2 - ]	•			ļ							
<del>│</del>	<del>,</del>	<del></del>			J-2						
7//	CL-Tan and Red		M.C.			Push #2					
	Silty clay		26%			2.5' to 4.5'					
1 7//			100		S-2	Run 2.0' Rec 2.0'					
4 — //						I F					
= 7//					J-3	<b></b>					
1 1//				ļ !		Push #3					
			100		S-3	4.5' to 6.0'					
= //	$\sim$	:	,			Run 1.5'					
6	<del>/</del>		<			Rec 1.5'					
3/2/	SC-Orange and Red		$\simeq$	[	$\simeq$	FISHTAIL					
7.29	clayey sand					Push #4					
7/2	<b>9</b> 1					6.5' to 8.4'					
7/1			100			Run 1.9'					
8	NOTE: Lithology of					Rec 1.9'					
79.9	overburden materia	ls	<del></del>		J-5						
<b>= 129</b>	is approximated.		$\sim$		$\simeq$	FISHTAIL					
						Push #5 8,8' to 10,8'					
			100		<b>8-</b> 5	Run 2.0' Rec 2.0'					
12	<b>*4</b>										
; · =	Continued on Shee	t #2		l .		J=Jar Sample					
=	LAB. CLASSIFICATIONS					S=Shelby Sample					
-	Spl. # Elev.					D=Denison Sample					
! =====================================	S-2 59.1' - 60.9'					W-Wax Sample					
= =	5-7 47.4' - 49.2'					<u>.</u>					
$\exists$	S-10   42.1' - 43.9'   S-14   30.0' - 27.0'										
	D-14 25.0' - 27.0'		CH Lave	rs		[-					
·- <u>-</u>	0-16 15.0' - 17.0'					/80					
1 🗇											
-		1				/ <b>00</b> r					

KILLING	LOG	(C	ont S	heet) ELEVATION TOP C	+63.4			H	ole No. 67	
506-7					INSTALLATION				SHEET 2	
Coope	r kı	ve	T R	ediversion		tephen	BOX OF	•	OF 7 SHEE	E15
.EVATION	DEPTH	LE	GEND		N OF MATERIALS		SAMPLE	1 7	relling time water loss, defi- weathering etc. if significant	
a .]	LO <sup>b</sup>		<u>.</u>	; •-	d	e e	1 1		<u>K</u>	
		2		SC-Orange a	nd Red clay	ey		•	Push #5	
		Z		sand C	ontinued	* 100	_	_ <b>J</b> -6	Continued	
	-	1111		SP-Tan claye	ev sand		7		FISHTAIL	
	-	-		coarse.	with trace				10.8' to 12.6	; <b>'</b>
7	?				1 from 16.0	· X		Х		
				to 17.0'		/ \		/\		
							١.		<del>}</del>	
								1	Push #6	
						100		5-6	12.6' to 14.2	2'
1	4								Run 1.6'	
_	•							J-7	Rec 1.6'	
						M.C. 13%			Push #7	n <b>1</b>
							:	S-7	14,2' to 16.2 Run 2.0'	٠ ·
						100		D 1	Rec 2.0'	
1	6							<u> </u>		
	-	<b> </b>					•	<u>J-8</u>	<del> </del>	
	1						,	c 0	Push #8	
						100	:	S-8	16.2' to 17.5	
				<del></del>			ļ	J-9	Run 1.3' Rec	1.3
,	8 -	•	<b>†↓†</b>	SM-CL-Tan a	nd Gray sil	ty		:	Push #9	
		•	111	sand into	erbedded wi		i i		17.5' to 19.5	5 *
I	- 1		1 1	silty cl		100		S-9	Run 2.0'	
	1	J	1	gravel,	noist	100	 		Rec 2.0'	
	1	بل	لغارا	·		_	}	J-10		
•	20			CL-Gray lea	n clay.	!			Push #10	
2	1	/			d with sand	i	i i	e 10	19.5' to 21.5	, <b>1</b>
	,	//						5-10	Run 2.0'	
,	}	//				100			Rec 2.0'	
	}						, I	J-11		
,	22		//>				•		Push #11	
۷	-2	//				100		S-11	21.5' to 22.8	3 *
	1							J_12	Run 1.3' Rec 1.3'	
	- 1	//				-		**	FISHTAIL	
	-}	//							Started Denis	son
,	4	/							@ 22.9'	
2	***	TÍ		ML-Dark gra		<u> </u>			Pull #1 22.9' to 25.	1 '
	1	$\ \cdot\ $			y sifty cla d lenses.	y 0.0	Box		Run 2.5' Rec	
	!			San			1		CL 2.5'	•
	j	11	11							
	26			_		60			Pull #2 Continued	
	.0 1	'		Continued o	n Sheet #3	<del></del>				
	•				<u> </u>					
	1							İ	181	
	:								101	

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	LOG	(Cont 3	heet	LEVATION TOP OF				Ho	le No. 6	
OJECT COC	ner B	liver	Redi	version	INSTALLATION	Stepher	n 5 (	٠.		SHEET 3
ELEVATION	DEPTH	LEGEND	iteur	CLASSIFICATION (Descri	OF MATERIALS		BOX OR SAMPLE NO	(D	REMA rilling time, u.a. ceathering, etc.	RKS ter loss depth of
<u>*</u> <u> </u>	265			ark gray ith sand	silty cla	y 60	f	D-12 J-13	Run 2.5 Rec 1.5 CL 1.0	27.9'
	28			ray silt et	y sand,	66	Box 1		Pull #3	co 28.9' ' Rec 0.6
	30					100		D-13	Pull #4 28.9' 1 Run 2.5 Rec 2.5	:0 31.4'
	<b>3</b> 2		i g	L-Gray f nterbedd ray silt	ed with	M.C. 32% s 100		J=14 D-14	Run 2.	to 33.9' 5'
38		above 34.0'-Micaceo below 34.0'				Box 2	\$14 J-15	Pull #6	3 to 36,4'	
	36					100		D-15 J-16	Run 2.5 Rec 2.5	5 <b>'</b>
	38					100	1	D-16	Pull #7 36.4' Run 2.5 Rec 2.5	to 38.91
	-						Box 3	J-17	Pull #8	3 to 41.4'
	40		over	:Litholog burden ma pproxima	aterials	100		D-17 J-18	Run 2.5 Rec 2.5	5 <b>'</b>
	42 ± 1	<u>///,</u>	Cont	inued on	Sheet #4	100	Box 4	- 1	Pull #9	Continue
ı I	]						i		1	82

	LOG	(Cont	Sheet)	EVATION TOP G				Н	ole No. 67	
eses Coon	on 9	i 11.64	Dad4		HSTAILATION	C+ a - 1			544 F	4
			1	rsion		, Stephe	e i Bux C		REMARKS	7. amin
LEVATION		LEGEND	`		CITIES MAJERIALS		SAMPL	: 1	hilling time water ' weathering it it we	djes
ā	42 <sub>h</sub>	100			d		NO 1		K	"4"J.#1
			SP-M	L-Gray	fine sand			•	Pull #9	
					ded with			1) – 1	3 41.4' to 4	. a •
		///			ty clay,	100		., .	Run 2.5' Re	
		///			rganic sea	ms			1	
	44	///		bove 34	.0'- s below 34		Box	$1 - 1^{\circ}$		
	• •			reaceou	s below 54	• () -	4			
		///	<b>~</b>						Pull #10	
		///	91					0-16	13.9' to .6 Run 2.5' Re	
			<b>'</b> .					D= 1 5	Kun 2.5 Ke	2.3
	• •					100				
	46	<b>%</b> /•/•/	ý					1 2/	1	
		///	· •					J-20	<del> </del>	
		1//	<b>y</b>						Pull #11	
		:///	· ·						45.41 to 48	. 9 "
		///						D-20	Run 2.5' Rc	c 2.51
	48	///	<b>'</b>			100				
			<b>/</b>			• • • • • • • • • • • • • • • • • • • •				
		///	<i>y</i>			_	Box	1 - 21		
		///	И				5	*		
		///	<i>*</i>						Pall #12	
	50		X					11-21	48.9' to 51 Run 2.5' Rc	
	-	///	]			100			nun nu	. 2.3.
		////	ن							
		////	4					J-22		
	,	///	1				<del></del>			
	5 <b>2</b>	Y/•/•	NOTE	Lithold	ory of				Pull #13	
	,	///	overl	ourden n	naterials				51.4' to 53	
		///		proxima		48		0-22	Run 2.5' Red	1.2'
		////	;		-	-34.0			CL 1.3'	
	,	////	•							
	54	////						J-23		
			SP-Gr	ay fine	sand wit	h	-	1-24	Pull #14	
	:				pockets				-rull #14 -53.91 to 56.	5.
								i	Run 2.51 Rec	
	1					24	Box	j	CL 1.9'	
	56 .						6	1		
;								İ		
		TITI		ay fin				7-24		
	4	<b>T T T T</b>	эм <b>~(</b> д) 1 г	oose te	e sand, aces of			J-26	Pull #15	
		1111		lay and					56.4 10 3.	
-	58 1	1111		et and	,	36			Run 2.5' Res Ch. 1.6'	1.45
ĩ	) C	#I #I							VI. 1.1	
			Lon: jr	and on J	nget ub			!		
								Ì		
	·							Ì	/Q	ζ
	t								10	

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	LOG	(Cont S	heet) ELEVATION TOP OF HOLE +63.4		1	Hole No.	67
ROJECT			NSTACLATION				SHEET 5 OF 7 SHEETS
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	CORE   d	OX OR.	REA Drilling time, s	MARKS water loss, depth of
.4	58ь		d	ERY :	NO t	ueathering, etc	g of significants
		<b>414</b>	SM-Grey	• •	•	Full #	
		+1+1	fine sand			Contin	
			loose		J- 2	7 Pull #	
		<b>         </b>	traces of clay and sile wet			58.91	to 60.91
	60	+I+I		2.73			0' Rec 1.0'
	į	†I†I		50		CL 1.0	) (
	1	†I†I			J- 2	3	
	•	†I†I			-	Pull #1	
		† <b>I</b> †I				60.91 t	10 63.41
	62	<b>†</b> I <b>†</b> I				CL 2.5	5' Rec 0.0'
	•	†I†I		0 0			,
	•	†I†I					
	;	† [ † ]					
	641	<b>†</b>		t-	o∢	Pull #	18
	p4;	<b>† † † †</b>			r.		to 5.91
	1	1111		0.0		Run 2.5	5' Rec 0.0'
		<b>†</b>		• • •		CL 2.5	5'
		I∳Î∳					
	66	I+1+				1	
	- 4	I†I†				FISHT	
	1	I+I+				Pull #1	
	1	Itlt		•			:0 68.51 1' Rec 0.01
		I†I†		0.0		CL 2.5	i Rec 0,0
	68	IfIt					
	1.	↓ţ↓↓			:		
		<b>.</b> †.†			7	FISHTAL	
	1.	<b>↓</b> ↑↓↑		$\times$	$\times$	<b>68</b> .51 t	0 69.71
-6.3	69.7					Splitsp	oon @ 69.71
	70 -		SP-unay		J-2	9	BLOWS 100/0.5'
	1		sant, saturate			<del>}</del>	100/0.5
			tree flowin.	\ /	1	/[	
				\ /	\ /	<b>'</b>	
	<u>}</u>	********		\ /	\ /	FIGUEA	
	72			Y	V	70.2' t	
	1			$\wedge$	Λ	10.2	0 / 5.0
	:			/\	/\		
	: :			/ \	/ \		
	74,	***		/ \		$\setminus$	
	قیس <sup>وی</sup> ر	aan ee aan	Continged on Sheet #p	t . A	<i>I</i>		
	•		•				l
	•						
	:					1	RU
							<i>() [</i>

KIELING	LOG	(Cont SI	neet) EFFATION TOP OF HOLE +03 4		Hole No. 67
in the second	r (5 )	er Redj		Styphen, S.C.	7
		. f - (Et a)	TO STATEFORM OF THE STERRAL	÷p tiny Mi γ tiny tiny tiny phi γ tiny tiny	September 1
	74	!::::::::	<b>CD</b> 3	\ /	BLOWS / AFISHTAIL
			SP-àray sand, saturated	$\times$	70.21 to 75.01
			free flowing		J-30 100/0.4
	7.			\ /	75.4' to 80.0'
				\ /	
				\/	$\backslash / \downarrow$
	4.0			χ	X
				$\bigwedge$	$ \setminus $
	ია				
					J-31 100/0.5
				\ /	FISHTALL
				\ /	\
	82			\ /	\
				V	V
				$\wedge$	$\Lambda$
				/\	
	d +			/ \	
				/ \	/ \
				<u> </u>	J-32 100·0.
	H.,				FISHTALL 85.5' 1 85.0'
					\
				X	NOTE: Top of touck was picked b
				/ \	drill action
•	.₹ઇ		TOP OF BOCK 38.01	<del></del>	<del></del>
			Smale-Dar Gray stip the calcare	0.25	FISHIMIL 58 CT to the t
			fissile <b>b</b> edded	1 10	9.11.#00
			micaceous, dense some sand in sha from 83 0' to 85		Carting
	P <sub>2</sub>		Cantinued on Steel m		
		. N	ote: Soils fielf classi n accordance with the L	tied without	
			n accornance with the could be consisted that the could be consisted that the could be consisted to the could be consisted		
					183

	S LOG	(Cont She	eet) ELEVATION TOP OF HOSE +1. j = 1			Н	ole No. 1/
Cog	per Ri	ver Redi	version				uneer 7 on 7 smeets
LEVATION	DEPTH	LEGEND	CLASSIFICATION FOR WITH A PERSON OF THE PROPERTY OF		* : .		REMARKS
	90 ь		1 **** **** ***** ***** ***** ****** ****	• k •	* 1		restating to all significants.  K
	.5 - 1.	0	ibale-Cark ,ra.				P. / L #20
		;— <b>-</b>	Slightly along a second				33 91 91 91
			tissile better.				F. 3.0' Rec 2.8'
							EL 0.21
			nicaceous, dense.		1010		) CL 0.2
	a		some sant lo stab		ź		<u> </u>
	92	. — —	from 88,01 to 88				Pull #21
		. — —	(19) 50,00 (CAS				91.9' to 94.9'
							P n 3.01 Rec 3.21
				105			56 0.2'
		<del>-</del>					
	6.h						
	94						
		. — —					
				~	_		
							P.11 #22
					Barr		34.91 to 97.91
	96				,		Run 3.01 Rec 3.01
	90	<del></del>		100			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
				100		W-23	
		;					
	•					W- 24	
	98	<del> </del>			•		
	90					W- 25	Pull #23
							97.9' to 100.9'
		. – –				,	Run 3.0' Rec 1.0'
				33			CL 2.01
				2.3			
	100						
	100					W- 26	
					Box		
		<u> </u>			. 6		Pull #24
							100.91 to 103.41
	102						Run 2.5! Rec 3.1'
				100			CG 0.6'
					·	_	
							Pull #25
•	104						103.41 to 106.51
			Linestone-Grad, Tren <u>glaucomitic, to distress</u>				kun 3.11 Rec 3.61
				-			CG 0.51
		\ 	Chestone-right aray	11.	4	w-27	
		工工	tyski teres s				
	100	<del></del>					1
43 1	106 5						<u> </u>
-• ) I	100 7		BOTTOM OF NO. E 100 -1	- + ~=		·	
		4	50 W 01 W. L 199				]
		t.					100

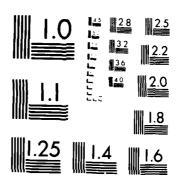
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					Hole No	
DRILLING LOG	DIVISION		LLATION		<del></del>	SHEET 1
PROJECT	South Atlantic		St Step		 5/10 Shelo.	OF SHEETS
and the second	ai arrior				SHOWN TEM OF MS	
Of ATION (Coordinates			4SL		Đ)	enison Bul.
	Of Right of Centerline	12 MA	NUFACTUR	ER S DESIG	SNATION OF DRILL	
R LLING AGENCY			ME 75			
HOLE NO (As shown on a	rawing title	13 70	TAL NO. OF	OVER-	N 7-Derice Son 23-Vars	15-Shells,
NAME OF PRILLER	68	<b>——</b>	TAL NUMBE		oxes 3	
<u> </u>		15. EL	EVATION G		25!	<u> </u>
SIRECTION OF HOLE	NED DEG. FROM V	16 DA	TE HOLE	-	R*E0 !	COMPLETED
			EVATION T			
MILKNESS OF OVERBU	· · ·	18 TO	TAL CORE	RECOVER	Y FOR BORING	FLOCK, 19.5%
PTH ORILLED INTO F	<del></del>		NATURE OF			
TAL DEPTH OF HOLE	100.81		<u>harles</u>			
EVATION DEPTH LEG	CLASSIFICATION OF MA	TERIALS	RECOV-	BOX OR SAMPLE NO	Drilling time, we weathering, etc	ARKS ster foes, depth ofif eignificant
7.	SC-lan and red, san	vivl. sv		<del> </del>	Push #	<u>×</u>
<b></b>	30- rain and red, San	rzy Stay	İ		0.01	•
<b>!</b> *			160	SHECBY		1 7.5 5
			103	#1		
7.2					İ	
	9					
	NOTE:Lithology brea	ik\$ 01	ĺ		1	
<b>199</b>	overburden mat		<u> </u>	- <del></del>		<del></del>
-129	are abbroximat	ed.	İ	1.7	P.SF #7	
				SHELBY		
			95	1 # 2	Kun 2.0	) For 1.91
	9			}		
192	91			<del> </del>	2	
-19	•			SHELLY	Pusi 53	
7	2		100	#3	+.51 to	
79					3 Fein 1.0	)   Res   1.01
	SP-lum and red sand	٠.		SHELEY		
	with some gravel		100	1 444 T	5.51.37	
3	some clay				.   Num 1.2	1.21
<b></b>	:::: <b>!</b>			<del></del>	7	[ () . e l
			Í			5.7
_	<b></b>					1 ( : : : : : : : : : : : : : : : : : :
			_	#5	W . T	
					,	
	SM+ian and red same	1	1		:	
1 ↓↑	LAB. CLASSIFICATION		İ		Property of the second	water
	1.   D.B. CLASSITISATION     11ev. 50.:1552.913	· ·			حاشينا	
i I 🛉	49.91-60.91		•			
	22.11-24.11					7
11	12.3'=13.5'		. :.			
	111-6.10		1		1	
; <b>†</b> Ĭ	والمراجعة وزوع					
	h ter Natarial wit		<del></del>			
	, ∳η He (1811) Maaf affaat war' Σα που κα					
المسلم	حد حدد المحاد عدد عدد المحاد			-		
1	All All All All All All All All All All				43.55	1
	to go godan or within			٠.,	e e qui <del>t</del> en	i tu drīve
•	Dec. Classiff atten					x 111 11.
•	and the state of t					197

LLING LO	Cont S	Sheet) ELEVATION FOR DE HUIE			Hole No. 68		
, T		replaced to			···· 2		
rooberik	civer Rec		virge™eD,	S.U <u>.</u> Euwik Euk	REMARKS		
ATHE NO DEPT	e Energe	CLASSIFICATION TO MATERIAL PROPERTY OF A CO		SAMPLE NO	to the time offer and		
12 <sup>th</sup>				ن :			
	1111	SM-Tan and red same		SHELBY	Push #7		
			190	#7	11.3' to 13.3'		
	I + I +				7 Run 2.0' Rec 2.0'		
	ĬŧĬŧ	Cobble at 13.5'			Push #8		
1→	I		400	SHELBY	13.31 to 15.31		
	IţIţ		100	πβ	Run 2.0' Rec 2.0'		
	1+1+				8		
	////	Dark gray cla, interperses					
16	1///	with sand scams.		SHELBY	Push #9 15.3' to 17.3'		
15	////		100	279	Run 2.0' Rec 2.0'		
	1///						
	1///				9		
	1///				Push ≈10		
1 ਤੇ	1////				17.3' to 19.7'		
	1///		100	SHELBY # <b>10</b>	Run 2.41 Rec 2.41		
	////		700	#10			
	////				10		
•	////						
20	1///			SHELBY #11	Push #11 19.7' to 21.2'		
	1///		100	<i>p</i> ( )	Run 1.51 Rec 1.51		
	1////			1	11		
	1///		-		Push #12		
22	<i>7.</i> 7.7.,				21.2' to 23.7'		
	1///		• 00	SHELBY	Run 2.5' Rec 2.5'		
	1////		100	#12			
	1///	Clay layers contain		_	10		
- 4	1///	slickenside surfaces (1996)					
2⁴+	1///	23.0' to 25.6'	100	SHELBY #13	rush #13		
	1///		100	13	23.7' to 25.1' Run 1.4' Rec 1.4'		
	1///			1	13		
	1///			SHELSY	Push #14		
26	1///		100	375L31	25.1' to 2 6' Run 1.5' Rec 1.5'		
	1///			1			
	1///	TOPE OF A PARTY OF THE PARTY OF		THE FOR	Post #15		
	1///	with clay savers, acro-	1 (0).	#1	15   26.61 to 27.61		
	1/.//				- Kun 1.0' 'lec 1.0'		
25	16/1.	Grand Committee		· · · · · · · · · · · · · · · · · · ·	FISHTALL		

COOPER RIVER REDIVERSION PROJECT LAKE MOULTRIE AND SANTEE RIVER SOUTH CAR. (U) ARMY ENGINEER DISTRICT SAVANNAH GA FEB 76 AD-A149 576 3/4 -UNCLASSIFIED F/G 8/7 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963 A

	LOG	(Cont S	heet)	VATION TOP OF				Н	ole No. 56
1 E 1		r Rediv			INSTALLATIE IN	. Stephen.	5.6.		SHET 3
•	DEPTH	LEGEND			OF MATERIALS	" CORE RECOV	BOX OR		REMARKS Visiting time wat it is again
	28 h	1.7.1.		•	· 		. NO	JAR	FISHTAIL
	20		argil '.micac	gray sand laceous, eous, int layers.		ith 50			Pull #1 28.3' to 31.3' Run 3.0' Rec 1.5' CL 1.5'
<u>.</u>	30		•				DENN. #16	16	
:	32					M.C. 43/ <sub>9</sub> 66	DENN. #17		Pull #2 31.3' to 34.3' Run 3.0' Rec 2.0' CL 1.0'
	34 .						_ ,	17	
	35					50	DENN.'	18	Pull #3 34.3' to 37.3' Run 3.0' Rec 1.5' CL 1.5'
	38 		no s 1	rk gray s n-cemente ightly mi ps on wit	caceous	, 16			Pull #4 37.3' to 40.3' Run 3.0' Rec 0.5' CL 2.5'
	'+O					 M.C.	•	19	Pull #5
						35% 50	DENN.		40.3' to 43.3' Run 3.0' Rec 1.5' CL 1.5'
	l <sub>k</sub> l <sub>k</sub>				sheet #4			20	Pull #6 Centioned

(

	LOG	(Cont	Sheet) ELEVATION		5.4			H	ole No. 68	
COOR	or D:	ar Dad	iversion		ALL ATIC YES	e <b>p</b> hen,	5 (			SHEET 4 OF 7 SHEETS
ELEVATION	DEPTH	LEGEND		FICATION OF MATE		'. CORE	BOX OR		REMA	
a	446			(Docepowe) d		FRY	NO I	i	u cathering, etc.	if ugnificant)
	46		wet, s	gray sand, d Dightly mic on withdrawa	aceous.	33	0ENN. #20	. JAR	Pull #6 43.3' to Run 3.0' CL 2.0'	46.3' Rec 0.0'
	_		Calcareou	is pocket at	40.01	Patter Programme and Programme		21	Pull #7 46.3' to Run 3.0'	49.3' Rec 0.0'
	48		:			0			CL 3.0'	
	50					M.C.	DENN. #21			Rec 2.51
I	52					83		22	CL 0.5'	
	54		• • •			0	- :		Pull #9 52.3' to Run 2.0' CL <b>2.0</b> '	54.3' Rec 0.0'
							† :			
	56					0			CL 3.0'	
	58						. ; 	23	Drive #1 Blows-10	0/0.7'
	 - -					0			Pull #11 58.0' to Run 3.0' CL 3.0'	61.0' Rec 0.0'
	60 =	1919	Continu	ed on Sheet	#5	<u></u>	• •		J	
1										190

DRILLING	LOG	(Cont S	heet) 1616 VATION TOP CH HOLE 55.4			Н	ole No. ార్గ
Coop	er Riv	er Redi	version St. St	eahen.	S.C.		$\mathcal{I}$
tic Afriti		•	CLASSIFICATION OF WATERIAL		5 4 70		W. MAR
	60%	22 (34)	Or some	• •	, , ,		And the control of the
		†I†I	SM-Dark gray sand, dense,			JAR	
		†I†I	wet, slight <b>ly</b> micaceous. (Slumps on withdrawal)				Pull #11 Continued
		1111	(Stumps on withdrawar)		-		Pull #12
	62	ItIt					61.0' to 64.3' Run 3.3' Rec 1.5'
							GL 1.8'
		+1+1		45			
		<b>†</b> ] <b>†</b> ]		M C	DENN.	•	
	<u>64</u>	1+1+		46%	#22		
		ItIt				24	
		<b>† † † †</b>					Pull #15 64.31 to 57.31
		<b>† † † †</b>					Run 3.0' Rec 0.0'
	<b>၁</b> ೮			ΰ			CL 3.01
		I † I *		Ü			
		+1+1					
		111				25	Drive #2
	68	1.1.				<u> </u>	Blows-100/0.31
							Pull #14 67.6' to 70.6'
		111					Run 3.01 Rec 0.01
		• ] • ]		0			CL 3.0'
	70						
		I					
		111			. ,	26	Drive #3
		• • • • • • •			•		Blows-100/0.41 Pull #15
	72						71.01 to 74.01
				_			Run 3.0' Rec 0.0' CL 3.0'
		+1+1		0			3.0
		<b>† † † †</b>					
	7-4	1414					
		<b>       </b>				27_	Plows-100/0.11
		<b>  I   I</b>					Pull #16 74.31 to 77.31
		111		16			Ren 3.01 Acc 0.51
	70	<u> </u>	and the contract of the contra				UL 2,5'
			Continued on Sheet #6	•			
	•						
							/91
							141

ILLING	LOG	(Cont S	heet) ELEVATION TOP OF HOLE 55.4			Но	le No. 68	
JECT			INSTALLATION			SHEET 6		
Coope	r Riv	er Rediv			BOX OR	Ţ	OF 7 SHEETS	
VATION	DEPT	H LEGEND	CLASSIFICATION OF MATERIALS  Description (	RECOV	SAMPLE	10	rilling time, water loss depin of	
	76 b		d	ERY	) NO	JAR	ceathering etc., if significant)	
_E	140-		SM-Dark gray sand, dense,	•	•	JAIN	1	
		Ⅎ⅃ℎ⅃ℎ∶	wet, slightly sicaceous.				Pull #16	
		<b>-</b>	(Slumps on withdrawal)			28	Continued	
	-	▔▔┆▗▝▗┆			-+			
	1					!	Pull #17	
	78	▃╡▐▐▐▐				i	77.3' to 80.3'	
		$\exists \phi I \phi I$				1	Run 3.0 Rec 0.0	
		╶┤∮╽∮╽		Ü		1	CL 3.0'	
	-			U				
						1		
	100					!		
	80 .	─┤Ĭ∳Ĭ∳ï	SM Dark area will			i		
		] <b> </b>	SM-Dark gray silty sant, with loose shell		-	. 29	Drive #5	
			fragments, danse	·		+ 23	Blows-100/0.5'	
			Tragmentes, danse				Pull #18	
•		<u> </u>	TOP OF ROCK 31.8"			<u></u>	80. <b>8</b> ' to 85.8'	
	82 .		Shale-park from 19, .				Run 5.0' Rec 5.0'	
•			dense, micaceous			WAX	1	
		7	Sandstone-Dark gray, hard,			#23		
	-	<b>-</b>	fractured with clay		i		ł	
			lamine, slightly	100	i	1		
			calcareous	i	: BOX	1		
•	84 -		Chala Dank annu Augus	•	1	!		
		<del> </del>	Shale-Dark gray, dense, micaceous, calcareous		i	ĺ		
	1	7	mireaceous, careareaus		1	İ		
	-			!		İ		
				!	:			
	86 .			<u> </u>	†	14034	2.11.//40	
				! 		WAX #24		
		<del></del>				#24	85.8' to 90.8' Run 5.0' Rec 5.0'	
	-	71	Sandstone seam from 87.21 to	ĺ	i	1	Null 3.0 Rec 3.0	
		7	87.41	1				
	00	1	<b>♥</b> /・'	!	<b></b>	+		
	88 -	<u> </u>		i		į		
				100	i		1	
		1	Sandstone from 88.71 to					
	-		89.1'					
		7						
	90 -	4-5-4			BOX			
		1			2			
		<u> </u>						
•	-	7	Shate-Dark Grave Fishile		Ì	WAX	Pull #20	
			bedded, hind, hicaceous		1	#25	Continued	
	100	1	becara, ne, reactions	i	ļ	! 2 )	Jonernaco	
	92 -	+	Continued on Sheet #7	-		<b></b>	1	
		-	Continued on week ex	i i	İ	}		
		-						
	-						10-	
					}	1	192	
	1	+				1	,,,,	

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RILLING	LOG	(Cont SI	neet) ELEVATION TOP OF HOLE 55.4			Hol	le No no
			HOTALLATION	Stephen	5 C		Carlotte
ျာပစ္	er Riy	<u>er Kedi</u>	CLASSIFICATION OF MATERIALS		BOX OF	• · · · · · · · · · · · · · · · · · · ·	KIMARAS
ACHTA+3.	DEPTH	LEGEND	Description	RECOV ERY	SAMPLE	. 1 1 r i	illing time traders a color nathering et all agents and
	. 92 <sup>b</sup>		d		!		K
	·	;	Shale-Dark gray, dense,			1	Pull #20
			hard, fissile bedded,		вох	WAX	90.81 to 95.81
			micaceous		2	#26	Run 5.0  Rec 0.9    CL   4.1
				18	-		
	94						
		,					
		:				w4x	
				,	_	#27	
	96 -	1		400	_		Pull -21: 6 3.01
				400			95.81 to 92.81 Run 1.01 Rec 4.01
					-		r — ·
					BOX	WAY	Pull #22 96.81 to 100.81
•		====			3	#28	Pun 4.01 Res 5.01
	98		Limestone-Hard, dense, fossiliferous, gray	125			CG 1.0'
			rossifilerous, gray	127		WAX	
		- I-L				#29	
		: TI					4
		++++			:		
	100 -			ı		W/\X	
				<u>'</u>	1	#30	<u> </u>
•			BOTTOM OF HOLE 100.81		1		
		1					
		]		1		:	
		-] ;		į.	i	•	
		- 4		1		į	
		- 1		;	!		
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		-1					
							1012
		•					193
		1					• •

Hole No. 69

					Hole No.	09
DOM - 1140 - 66	DIVISION	INSTA	LLATION			SHEET 1
DRILLING LOG	South Atlantic		St. St	ephen,	_S.C	OF 6 SHEETS
PROJECT		10 SI	ZE AND TYP	OF BIT	5" Square Aug	er & 6x7 3/4
Cooper River Re	diversion	11 0/	TUM FOR EL	EVATION	SHOWN (TBM or MSL	Bit
Cooper River Re	Station)	1	MST			0.0
	600+20 400' Left	12 MA	NUFACTURE	R'S DESI	GNATION OF DRILL	
DRILLING AGENCY			Failin			
Savannah Distir	ct				DISTURBED	UNDISTURBED
HOLE NO. (As shown on de	awing title	13 8	OTAL NO OF	LES TAKE	N 42	
and lile number	b9	}			<del></del>	<u> </u>
NAME OF DRILLER			STAL NUMBE		<del></del>	
C. Parden		15 E	LEVATION GE	NOUND WA	TER 45.6	
DIRECTION OF HOLE				STA	RTED IC	OMPLETED
TVERTICAL TINCLIN	IED DEG FROM VERT	16 0/	ATE HOLE	2	c March 75	28 March 75
		17 F:	EVATION TO	P OF HO		
THICKNESS OF OVERBUR	DEN 85.51	11.		<del></del>	01.1	FI
DEPTH DRILLED INTO RO					Y FOR BORING	54 %
<del></del>		119 51	GNATURE OF	INSPECT	POR	
TOTAL DEPTH OF HOLE	90.51	!	2.1.	į 4,	<u>GeoCanning</u>	
	CLASSIFICATION OF MATER	ALS	T. CORE	BOX OR	REMA	RKS
LEVATION DEPTH LEGE	(Description)		RECOV-	NO	(Drilling time, wat weathering, etc.,	er lose, depth of if eignificant)
<u> </u>	d			L <u>'</u>	9	
	♦ SM-Gray.	-		!		
│ ┤ <b>♦</b> ╽♦	silty fine sant					
	T S FLY FIRE Same		!		_ 10 01	
; — ↑ ↑ ↓ ↑	♦		1	uz VI v	W.T. 18.0'	<del></del>
i ⊐†1†	11		1	100	rate 26 Marc	h 75
	T		i	BAG		
2	.↑		Ì	וו	Dopin to wa	
	'↓		į		during dril	ling
	<u> </u>		l l	i		
	.T.		ļ	1		j
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<del>} </del>			ļ	w.T. 15	.5'
7//	CL-Tan and red.		ĺ		Water table	reading
+//	fine sandy clav		ĺ		1	•
4 <b>-7</b> //			ļ	JAR	<u>24</u> _hrs.	after
<del>   </del> //			}	2	hole comple	ted
1 7//	<b>/</b>		- {	BAG		
-   ///	<b>/</b>		İ	2	1	5 . CA T . CM
	<b>/</b>		ŀ	_	LAB. CLASSI	
				į	Sol. Elev.	
			İ		B-1 58.1'-	61.1' SM
6	<b>/</b>		<del></del>	ļ	B-4 49.1'-	52.1' SM
	SC-Tan and red,			1	B-9: 34.11-	37.1' SM
	clayey fine sand		į		B-9* 34.1'-	
				JAR	B-12 25.1'-	
7.9	Z)		i	3	23.112	
-79			ı	BÁG	1	W/ Clay Lyrs
			1	1	Note: Sand a	nd Clay
8 -	7		1	3		
	<b>?</b> ]			!	Layers Separ	ated.
-[%\]	<b>9</b> 1			+	1	
	<b>[9</b> ]			i	1	
-7902	<b>[9</b> ]		1	]	1	
190	<b>9</b>			JAR	1	
	<b>9</b>		i	4	ļ	
10	<b>3</b> /		İ	1 .	1	
	•			BAG		
<b></b>	•		1	1 4	1	
	•		- {	!	1	
-129	lack		1	ł	F .	
			!	1	1	
12 - 7	<del></del>				<del> </del>	
	J.,		. i	j	}	
i -	NOTE: Soils field class			1		
	in accordance with the		إ به إ	!		10./
-	Soil Classifination of	٠,,	1	1		194
	T '		1	Ţ	ł	<i>, , , ,</i>
7	i e e e e e e e e e e e e e e e e e e e		1	1	,	* *

DRILLING	LOG	(Cont	Sheet) ELEVATION TO	61.1		Hole No. 59	
FRC - E				INSTALLATION	Charles C C	mir 2	
Cooper	Ri√e	er Redi	version		Stephen, S.C.	MI MARKS	:: - <del></del>
ELEVATION	DEPTH	LEGEND		TION OF MATERIALS Descriptions	RECOV SAMPLE ERY NO	the Place time of the second to	
4 .	12 b			व		Ľ	
		1/1/2	SC-Tan and	red,			
		15/5	clayey f	ine sand			
		777			JAR 5		
					BAG		
	14	///	_		5		
			,				
			<u> </u>				
	16	1//					
	Ю	777	<b>.</b>		JAR		
					6		
		7,7,7	•		BAG		
					6		
	18	227	¢				
			SM-Tan.				
			silty fi	ne sand with			
			ciay iay	C13	JAR 7		
			2		вÁG		
	20	1			7		
			-				
	22				10.0		
		-	Dark gra	<u>—</u> У	JAR 8		
			9		BAG		
					8		
	24						
			_		JAR		
		·			9		
	26		ā 2.		BAG		
	20	وسينية			9 :		
		سينا	1				
		[	3		T .		
	28		<u> </u>				
		1	Continued	on Sheet #3			
			•				
		•				195	
		•				173	

PRILLING	LOG	(Cont S	heet) ELEVATION TOP OF HOLE 61.1			Hole No. 69
EOJECT			INSTALLATION			SHEET 3
Cooper	Rive	r Rediv	ersion St. St			OF 6 SHEETS
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS		BOX OR	REMARKS (Drilling time, water loss, depth of
			(Description) d	ERY	. 40	ueuthering, etc., if significant)
. 🖆	28ь		- · - · · · -	• `		
	_	1.00	Sand-Dark gray,		JAR	
			Silty interbedged with		10	
			clay layers		BAG	
	-				10	
	30	•				
	: -					
	-	••••			JAR	
	_				- 11 ·	
	-				BAG	
	32				11 1	
	-	•			. 1	
	_					
				1	1 ;	
	-					
	]_, =					
	34				JAR	
	{ =			1	12	
	-				BAG	
	i –			i	12	
	-				1	
	36 _	•				
	J					
	) =					
	i -				JAR	
	_	•			13	
	-				BAG	
	38 _	i.			13	
	-	····		1		
	-					
1.1		•		<del> </del> -	<del> </del>	
	-	1	Shale-Dark gray, fissil			Pull #1
	11.0	<u>                                   </u>	bedded with Mica and		1	39.0' to 42.0'
	40 _		some organic material	1		Run 3.0' Rec 2.0'
	-		along some of the			CL 1.0'
	-	===	bedding, interbedded	66		
			with sandstone layers.	•	201	
	1 -	<del> </del>	Slickside surface at 42.0'	1	вох	
	42	===	Sandstone layers 40.0' to 40.1'		] 1	
	-	<del> -==</del>	42.2' to 42.3'			Pull #2
	-	13-5	46.6' to 46.8'		1	42.0' to 45.0'
		- <u></u> -	48.3' to 48.5'	66		Run 3.0' Rec 2.0'
	_	1===	10.7 10 40.7			CL 1.0'
		7		:	1	
	44 _	<del></del> -	<del> </del>	<del>-</del>		
	-		Continued on Sheet #4	ļ.	1	
		-		1		
	-	7			1	101
		1	1	t	1	196
	1	- 1		*	I	110

	LOG	(Cont Sh	neet)	N TOP OF HOLE	61.1			Hole No	). <u>†</u> 9
Parit 1					NSTALLATION				· · · · · · · · · · · · · · · · · · ·
	Ser K	Met Ked	iversion			ephen,	·	, · _ · _ · _ · _ · _	
ELEVATION	DEPTH	LEGEND	CLASSIF	ICATION OF N Description I d		RECOV ERY	BOX OR SAMPLE NO	Deilling ti weithern	REMARKS  THE Hater 1077 Common
	77			k gray, f ded with		66	BOX 1	Pull #2	Continue-1
	46		bed wit Slickside Sandstone 40.1'	surface layers 4	erbedded one layers. at 42.0'	66	<del></del>	Pull #3 45.0' to Run 3.0' CL 1.0'	48.01 Rec 2.01
	48		42.2' to 46.6' to 48.3' to	46.81				Pull #4	
	50					40		48.0' to Run 3.0' CL 1.8'	
! •!	52			gray, y consol bedded w			BOX 2	Pull #5 51.0' to Run 5.0' CL 2.8'	
	5 <b>→</b>					44			
	-)·		Fands Cills						
			Sand-Silty with "SM"	r, dark g shell fr	ray, agments.				
	30						BAG 14 JAR 1 <sup>1</sup> 4		!
	5	<u>.                                    </u>	Continue	ed on She	et #5	4			
	•								197

ROJEC!			heet) ELEVATION	61.1				Hole No. 6	_
Caaaa				NSTALLA"	nCina				SHEET 5
Coope	er Riv	er Redi	version			Stepher	n. S.C.		OF 6 SHEETS
LEVATION	DEPTH	LEGEND	CLASSIFI	CATION OF MATERIAL DEScription :	.5	°, CORE RECOV ERV	BOX OR, SAMPLE NO	REM. Disting time usuathering et.	ARKS uter loss depth ( , it significant)
a.	.60 <sup>b</sup>	1999	Sand-Gray	d , clayey, fin	e	. "	· •	Ī	<b>K</b>
				n with shell ments.			BAG 15		
	62						JAR 15		
•				, silty to fi bedded with		•			
	64						8AG 16		
							JAR 16		
	66								
							BAG		
	<b></b>						. <b>1</b> 7 JAR		
	6 <b>8</b> .						17		
							<del>,</del>		
	70						BAG 18		
		1/1/2 1/2/2					JAR 18		
	72								
	72								
							BAG 19		
	74						JAR 19		
	76 -						BAG 20		
			Continue	d or Sheet #6	,	<del>-</del>			
		• • •							198

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PRILLING	LOG	(Cont Si	neet) ELEVATION TOP OF HOLL 61.1		Hole No.
ing the second	, н	ver Redi	INSTALLATION ST. S.	tephen, S.C.	1
HE STOR	DEPTH.	LEGEND	CLASSIFICATION OF MATERIALS	". CORE BOX OR RECOV SAMPLE	REMARE Liteliers pome a series series
	, /δ÷		d Sand-Gray, silty to fine, interbedded with clay.	JAR 20	K
	78			<del></del>	
	30				
	≟ m v. •			BAG-21 JAR-21	
	ב <sup>י</sup> ל			<u>-</u>	
- 3 <del></del> ,	გნ		TOP OF ROCK 85.5' Shale-Dark gray, sandy, dense		Pull #6 85.5' to 90.5' Run 5.0' Rec 3.6' CL 1.4'
	7.5			72 <b>0</b> X WAX 1	CL 1.4
	<sub>2</sub> 0				
До			BOTTOM OF HOLE 90.51		199

SHEET 1 OFÓ SHEETS  ID SOLITSDOOR & 4x5  BM or MCL) (Ore Bb)  F DRILL  BEO UNDISTURBED  UNDISTURBED  4-7  1 COMPLETED 4-19-75  REMARKS  1 time, water lose, depth of reing, etc., if eignificent)  9  Square Auger used on 0.01 to 3.01
FORILL  BED UNDISTURBED  SQUARREN  SQUARREN
REMARKS Lettine, water lose, depth of reing, etc., if eignificant)  Square Auger used on 0.01 to 3.01
REMARKS (time, water lose, depth of pering, etc., if eignificant)  Square Auger used on 0.01 to 3.01
REMARKS (time, water lose, depth of pering, etc., if eignificant)  Square Auger used on 0.01 to 3.01
REMARKS (time, water lose, depth of ering, etc., if eignificant)  Square Auger used on 0.01 to 3.01
REMARKS (time, water lose, depth of ering, etc., if eignificant)  Square Auger used on 0.01 to 3.01
REMARKS (time, water lose, depth of pering, etc., if eignificant)  Square Auger used on 0.01 to 3.01
REMARKS (time, water lose, depth of ering, etc., if eignificant)  Square Auger used on 0.01 to 3.01
REMARKS (time, water lose, depth of ering, etc., if eignificand)  Square Auger used on 0.01 to 3.01
REMARKS (une, water lose, depth of ering, etc., if eignificant)  Square Auger used on 0.01 to 3.01
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Square Auger used on 0.01 to 3.01
on 0.01 to 3.01
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T
te <u>-+-18-75</u>
pth to water
ring drilling
Nacid need
htail Bit I' to 5.0'
-0 ).•
ve #1
' to 6.5' ws: 42
W5: 42
htail Bit
' to 10.0'
ve #2
0' to 11.5'
ws: 27
ws: 27
ws: 27
5 - i

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RILLING	LOG	(Cont S	heet) ELEVATION TOP OF HOLE	56.2	Hole No. 70						
OIECT			·	INSTALLATION				SHEET 2			
Cooper	Rive	r Rediv	version	St. St	ephen,			OF 6 SHEETS			
LEVATION	DEPTH	LEGEND	CLASSIFICATION OF (Deursption		% CORE RECOV ERY	BOX OR SAMPLE NO	0	REMARKS (Drilling time, water low depth of weathering, et. if significant)			
a	.12 <sup>b</sup>	W.7 W	<u>d</u>		<del></del>	JAR.	BOX		_		
			SC-Clayey sand, T with some grav					Fishtail Bit 11.5' to 15.0'			
	14					 					
	16					5		Drive #3 15.0' to 16.5' Blows: 35			
0.0	•	77	Limestone-Tan,san Fossiliferous, de	dy, hard,		i		Pull #1			
• 1	 		Shale-Dark gray, seams tan sandsto	with thin	<b>-</b>	1		16.5' to 20.5' Run 5.0' Rec 5.0'			
•	18		Sandstone-Gray, o		100		(				
•		777	hard, dense			 	!				
•	-	1414	SM-Sand,dark gray fragments, calca <u>largillaceous</u>		<u> </u>		:				
	20		Limestone-Gray, h								
	22		Sand(SM), Gray, w fragments from 19	ith shell	<b>*</b>		1	Pull #2 20.5' to 25.5' Run 5.0' Rec 4.5' CL 0.5'			
**•** • •			<b>Sheld-D</b> ark gray, fissile bed with thin s	ded,							
	24		seams	•	90						
i	-							**************************************	_		
	<b>2</b> 6					6	! [	Pull #3			
		////	SM-Sand, gray, de argillaceous,	nse,	1			25.5' to 30.5' Run 5.0' Rec 4.0'			
1	  		interbedded wi layers	th clay	80		2	CL 1.0'			
	28	\$ 7.Z.Z	Continued on Shee		<del>-</del>		_1	. <del> </del>			
	-	1				1					
:		†				!		201			
		1				1					

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DRILLING	LOG	(Cont Sheet	ELEVATION TOP OF HOLE 56.2			Hole No	. 70	
PROJECT		,	INSTALLATION				SHE	3
COORE	Rive	r Rediversi	on St.	Stephen	<u>. s.c.</u>			6 SHEETS
		1	CLASSIFICATION OF MATERIALS	* CORE	BOX OR	(Drilling ti	REMARKS me. water i	m depth of
ELEVATION	DEPTH	LEGEND	(Description)		SAMPLE	ueathern	ig, etc. if ii,	gnificani)
	28b		d	, "	, JAR	. вох	, 43	- 1
•		//// SM	-\$and, gray, dense.			Pull		· · · · · · · · · · · · · · · · · · ·
		1./0/01	argillaceous.			Lont	inued	[
		6/1/	interbedded with clay					i 1
		1/1/1	layers			{		
		99%			7	ļ		1
	30 -	4%/			,			i
		1.1.1			-	D. 11	#1)	
		1././				Pull	1 #4 5' to 3	5 51
		1././4				1 30.5	, נט א קור א	ec 2.7'
		1/4/				CI	2.3'	
	32	4//				"-		,
	۽ ر	1/./~						•
		1/1/				2		:
		1//1				-		,
		1./9/4		54				
		41%				ĺ		
	34	///						
		1.7./-				1		
		1.//			8	}		
		1/1/4			5	1		
		1/1/4			_	<del> </del>	1 45	
		1/1/				Pul	1 #5 5' to <sup>L</sup>	יט כי
	36	4//				35.	ינס <i>ב</i>	10.5' Rec 4.2'
		11/2				l kun	0.81	.CC 7.4
		1.1.1.					J. U	
		7./9						
		6/9/9				}		
	38	9/1/		-				
	٥ر	1//		84				
		1/1/2				1		
		1././		•		1		
		1./1/9		•				
		1/1/4			^			
<u> </u>	40 -	-/9/4			9			
1		1///		,	<b>-</b>			
}		1/1/2				Pul	11 #6	1.6.61
<b>{</b>		1././4				40.	51 to	45.5°
		10/0/9				Rur	1 5.0'	Rec 0.21
(		7///				1 67	4.0	
1	42			L <sub>+</sub>		3		
}		1//				}		
<b>!</b>		1././.						
1		1.7.19				1		
		1./0/9						
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RILLING	LOG	(Cont	Sheet) ELEVATION TOP OF	56.2	56.2				Hole No. 70				
OJECT				INSTALLATION		c r			SHEET 4	_			
Coope	Rive	r Redi	version	St. Ste	epnen,	BOX OR	1	REMA	<del></del>				
ELEVATION		LEGEND	CLASSIFICATION (Descri		RECOV. ERY	SAMPLE		(Drilling time, us usathering etc.	ster ion depth of				
	44b	C 2225	<u>d</u>		<u> </u>	JAR	BOX	Pull #6		-			
		1././	SM-Sand, Gray,	dense,		:	,	Continued					
	-	10/0/4		, interbedded		1		Concinded					
		9///	with clay la	yers									
	-	1.///				4		<b>-</b>					
	46	1././.					-	Pull #7					
:		9/1/2					1	45.51 to					
	_	<b>!</b> ///.				1	i	Run 5.01	Rec 2.5'				
		1/./					İ	CL 2.5'					
	_	1./9/9	4				Ì						
!	48	1///	2			1							
1	.0	<i>\/./</i> ,			50								
		10/0/9	4			-	ļ.						
i		19/1	1			1							
i	_	1///	<b>a</b>			ļ	3						
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·	50	1./9/9	Calaanaaua aaak	at at E0 01		10	į.	}					
í	_	19/9/9	Calcareous pock with some black	organic	<b> </b>	1	1	ļ		_			
1		1//	material.	. 0, 900			1	Pull #8					
		1/./.	<b>A</b>				1	50.51 to		1			
	_	10/9	1					Run 5.01	Rec 2.2'	İ			
i	52	6/9/7	1			1		CL 2.81					
	_	1///	2			1		ł					
	-	1//				i	ĺ	1		1			
İ	-	19/9/9	1		44	1	1	1					
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!	=	1/./	7			1							
	56	7///				1		Pull #9					
17-	بار	6/9/9	1					55.5' to	60.51				
• •	_	199	2					Run 5.01	Rec 2.51				
!		<i>\/</i> ./.						CL 2.5'		į			
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RILLING	LOG	(Cont	Sheet) ELEVAT	Hole No. 70							
ROJECT					INSTALLATION	Cense		s (		. <u></u>	SHEET 5
Coope	r Rive	er Red	iversion			Stephe		BOX OR		RFM	OF 6 SHEETS
ELEVATION	DEPTH	LEGENE	CLAS	SIFICATION OF Description		REC	RY	SAMPLE NO JAR		(Drilling time, w weathering, etc.	ater loss, depth of
		1/1/9	SM-Sand	gray, d	ense	. +	=-	12	PEN	Pull #9 C	ontinued
,		1///	argí	llaceous,		<del></del>		1		<del> </del> -	·
1		19/9/9		rbedded w	ith clay	!		į		Pull #10 60.5' to	65.51
	**	1///	laye	5				1	!	Run 5.01	Rec 0.51
1	62 —	1///	1			į		į	: 1	CL 4.5'	
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	-	1//	<b>}</b>			1	0			Ì	
i	64 -	1///	}								
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	-	1/1/2	4					,			
	66	///	7			1		1		Pull #11	
İ	-	1///							İ	65.5' to Run <b>5</b> .0'	
-t=-8		1//4				i		14	ĺ	CL 3.0'	NEC 2.0
-	_		SM-Sand	, gray, o	dense,			14		!	
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	=	+ [ + ]								Pull #12	·
	-	<b>         </b>				İ		1		70.5' to	75.51
									-	Run 5.0'	Rec 0.01
ļ	72 —	<b>  ]   ]</b>				İ				CL 5.0'	
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1	-	]	Continu	ied on Sh	eet #6			ı	1		
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	LOG	(Cont	Sheet)	ELEVATION TOP	56.2				1	Hole No. 70		
216CT					INSTALLA	TION	,				SHEET 6	
Coop	er Riv	er Rec	ivers			St. Ste					OF 6 SHEETS	
EVATION	<b>рертн</b> 76 h	LEGEND			ON OF MATERIA exception) d	LS	% CORE RECOV- ERY e	SAMPLE NO		REMA Drilling time, we weathering etc.	eter low depth of of significants	
	12.2.				y, dense,		<del></del>	JÁR	DUA	Pull #13		
				iaturat <b>e</b> d	,					75.5' to Run 5.0'		
	78 -									CL 2.5'		
	:/o						50		) ! !			
				•					4			
	80 —						!	14				
						}				Pull #14 80.5' to	90 01	_
			V	ith shel	k gray, de l fragme <b>nt</b>	s,		15		Run 5.0'		
	82 -			alcareou	s, micaceo	ous	!			1.,		
			1									
· · · <u>·</u> · £:	84	111	<del> </del>	TOP OF R	OCK 84.0	h n = 3	66					
	-		i .		y, dense, argiliace ray, micac				5			
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29.3	<b>85.5</b> .	ļ::::::::			ay, dense							_
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Hele No. 71 HSTALLATION DRILLING LOG South Atlantic St. Stephen, ROJECT 10. SIZE AND TYPE OF BIT 1 3/811 DAYUM FOR ELEVATION SHOWN Cooper River Rediversion Core Bbl & Fishtail MSL Sta, 602+00, 450' Left of Centerline 12 MANUFACTURER'S DESIGNATION OF DE CME - 75 Savannah District TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN HOLE NO. (As shown on drawing title) 71 14. TOTAL NUMBER CORE BOXES NAME OF DRILLER IS. ELEVATION GROUND WATER 46.7 T. W. Scott DIRECTION OF HOLE COMPLETED IS. DATE HOLE 3-26-75 VERTICAL | INCLINED DEG. FROM VERT 17. ELEVATION TOP OF HOLE 56.2 THICKNESS OF OVERBURDEN 82.01 91.2 18. TOTAL CORE RECOVERY FOR SORING DEPTH DRILLED INTO ROCK 6.0' 19. SIGNATURE OF INSPECTOR TOTAL DEPTH OF HOLE 88.01 Charles M. Deaver SCORE BOX OR SAMPLE NO. BOXJAR CLASSIFICATION OF MATERIALS DEPTH LEGEND SM-Tan sand, loose SM-Tan and red sand, 11 slightly clayey SC-Tan and red. sandy clay Date 3-25-75 Depth to water during drilling Some gravel below 6.0' SM-CL-Tan and red sand interbedded with clay seams Continued on Sheet #2 BLOWS PER FOOTE NOTE: Soils field classified Number required to drive in accordance with the Unified 1% ID splitspoon w/140 1] hammer falling 30". Soil Classification System.

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	100	Con	Sheet) ELEVATION TOP OF HOL	56.2			Hole No.	71 <u> </u>
DIECT				INSTALLATION	Stephen,	s (		SHEET 2
Cooper	Kive	Real	CLASSIFICATION OF			BOX OR	RE	MARKS
EVATION	DEPTH	LEGEND	( Description		RECOV- ERY	SAMPLE	(Drilling time usathering (	mater ins depth ( its if significant
	12 <sup>b</sup>		<u>d</u>		- <u>-</u>	BOXJAR		K BLOWS
	-	1///	SM-CL-Tan and re	d sand				
	-	1//	interbedded w seams	ith clay		9		
1		3/9/2	Seams			'		40
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		///	SM-Dark gray sar argillaceous,	nd,		'		
		1.///	interbedded v		İ			50
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i	_	1.///	micaceous			14		
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	22		3		;	15		100/0/4
		////						100/0.41
		9/1/	1					
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1	24	1/9/9	1					102
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	_	///	1		Ì		Fishtail	
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	28	10/1/2	Continued on	Chast #3		<del>  1    </del>		
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RILLING	LOG	(Cont S	heet)	ON TOP OF HOL					Hole No.	7 <b>1</b>	
HOJECT			version		1.512. 1.75					SHEET	
СООРЕ	FRIV	er Kedi			<i>,</i> •	Ciden		C		046	SHEETS
ELEVATION	DEPTH	LEGEND	CLAS	SIFICATION OF Description		+ f _ 1	8 18 1. 1. 44		Dr ling time	MARKS	lepin .
	28 b	1.		4	•	1 ERY	BOX		weathering, et	- if ilgnift K	
	-EU	111/	CM David		a a	• '	1007	Je v to			
	٠,		SM-Dark	gray <b>s</b> am Taceous,	d.		1	18			C. 3
		11.//		bedded w			Ì	•		•	<i>t</i>
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		9///									
	36	////				• · · •	,	•			
	-	1///							Pull #1	. 01	
		1///					- 1		36.0' to 39 Run 3.0' Re	1.0°	
	-	9///					i		CL 0.3'	2.7	
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	38 -	1.///					İ				
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		1///				<b>***</b> *********************************	.	_			
		1///					1		Pull #2		
	40 —	6/9/%					-	21	39.01 to 42 Run 3.01 Re	∪. 	
	40 -	1///						Z	CG 0.3'	.c <b>)</b> .)	
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	42	1/./				m			D. 11 #2		
		1/1/2					1	1	Pull #3 42.01 to 45	ים	
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ILLING LOG	(Cont S	heet) ELEVATION TOP OF HO	56.2				Hole No. 71	
Cooper Riv	er Redi	version	St. Ste	phen. S	.с.		OR 6 SHEELS	
VATION DEPTH	LEGEND	CLASSIFICATION OF	MATERIALS	% CORE RECOV ERY	SA.	K OR MPLE	REMARKS (Drilling time, water loss depth of wathering, etc., if significant)	
		SM-Dark gray san argillaceous, interbedded w	dense,	100	PUX	1 JA	Pull #3 Continued	
46		layers, slightly mica		100			Pull #4 45.0':to 46.5' Run 1.5' Rec 1.5'	
48				100	2		Pull #5 46.5' to 50.0' Run 3.5' Rec 3.5'	
<b>⊃</b> Ú					<b>!</b> <b>→</b> 	23	Pull #6	
•	1111	Sandstone-Dark g calcareous \$M-Dark gray san	nd, dense,	~- -			50.0' to 54.0' Run 4.0' Rec 1.3' CL 2.7'	
52		with <b>loos</b> e sh fragments, mi		32		:		
54				<u> </u>			Pull #7 54.0' to 59.0'	
<b>5</b> 7		SM-Dark gray san saturated, lo micaceous			3	24	Run 5.0' Rec 5.0'	
58				100				
,,						<b>,</b>	Pull #8	-
6.0		Continued on Sh	— — —	50	_ ]	25.	Continued	
	, , ,	Continued on Sh	יכפנ #כ				-209	

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DRILLING LOG (Cont Sheet)	Hole No. 71
PROJECT	SHEET 5
Cooper River Rediversion	1 4 6 CAPPES
ELEVATION DEPTH LEGEND	Sugar State Sugar State Sugar Sugar
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SM-Dark gr	9 5 - 1 - 13 - 14
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<b>│</b>	(u)1 #10 66 0! to 68.5!
	2.5' Rec 5.0'
	7 2.51
68	
<b> </b>	+ 3 (1 / // 11
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	1.01 Rec 4.01
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<b>│</b>	
76	-
	2/0

Rive		Version St. St  CLASSIFICATION OF MATERIALS (Description)  d  SM-Dark gray sand, saturated, loose, dense, micaceous  SM-Dark gray sand, with clay pockets, micaceous  Shell fragments below 80.51  TOP GE ROCK 82.01  Sandstone-Dark gray, hard, calcareous	% CORE RECOV ERY	BOX SAA	OR :	REMARKS  Desling time water in depth of weathering it. if again, and it.  Pull #13 75.0' to 78.0' Run 3.0' Rec 3.5' CG 0.5'  Pull #14 78.0' to 81.0' Run 3.0' Rec 4.6' CG 1.6'
DEPTH Sb		CLASSIFICATION OF MATERIALS (Description)  d  SM-Dark gray sand, saturated, loose, dense, micaceous  SM-Dark gray sand, with clay pockets, micaceous  Shell fragments below 80.5!  TOP GE ROCK 82.0!  Sandstone-Dark gray, hard,	% CORE RECOV ERY	BOX	OR APLE O JAR	REMARKS  (Drilling time water lim. depth of weathering etc. of ugenth and it.)  Pull #13  75.0' to 78.0'  Run 3.0' Rec 3.5'  CG 0.5'  Pull #14  78.0' to 81.0'  Run 3.0' Rec 4.6'  CG 1.6'
<b>ξ b</b>	LEGEND	SM-Dark gray sand, saturated, loose, dense, micaceous  SM-Dark gray sand, with clay pockets, micaceous  Shell fragments below 80.5'  TOP GE ROCK 82.0' Sandstone-Dark gray, hard,	RECOVERY	BQX	APLE O LJARI	Pull #13 75.0' to 78.0' Run 3.0' Rec 3.5' CG 0.5'  Pull #14 78.0' to 81.0' Run 3.0' Rec 4.6' CG 1.6'
3		SM-Dark gray sand, saturated, loose, dense, micaceous  SM-Dark gray sand, with clay pockets, micaceous  Shell fragments below 80.5'  TOP GE ROCK 82.0' Sandstone-Dark gray, hard,	116	5	-	Pull #13 75.0' to 78.0' Run 3.0' Rec 3.5' CG 0.5'  Pull #14 78.0' to 81.0' Run 3.0' Rec 4.6' CG 1.6'
		SM-Dark gray sand, with clay pockets, micaceous  Shell fragments below 80.5'  TOP GE ROCK 82.0' Sandstone-Dark gray, hard,	116	<b></b>	- 29.	75.0' to 78.0' Run 3.0' Rec 3.5' CG 0.5'  Pull #14 78.0' to 81.0' Run 3.0' Rec 4.6' CG 1.6'
		SM-Dark gray sand, with clay pockets, micaceous  Shell fragments below 80.5'  TOP GE ROCK 82.0' Sandstone-Dark gray, hard,	p	<b></b>	29.	Run 3.0' Rec 3.5' CG 0.5' Pull #14 78.0' to 81.0' Run 3.0' Rec 4.6' CG 1.6'
		with clay pockets, micaceous  Shell fragments below 80.5'  TOP GE ROCK 82.0'  Sandstone-Dark gray, hard,	p	<b></b>	29.	Pull #14 78.0' to 81.0' Run 3.0' Rec 4.6' CG 1.6'
		with clay pockets, micaceous  Shell fragments below 80.5'  TOP GE ROCK 82.0'  Sandstone-Dark gray, hard,	153	<b></b>	- 29.	Pull #14 78.0' to 81.0' Run 3.0' Rec 4.6' CG 1.6'
		with clay pockets, micaceous  Shell fragments below 80.5'  TOP GE ROCK 82.0'  Sandstone-Dark gray, hard,	153	6	29.	78.0' to 81.0' Run 3.0' Rec 4.6' CG 1.6'
-		with clay pockets, micaceous  Shell fragments below 80.5'  TOP GE ROCK 82.0'  Sandstone-Dark gray, hard,	153	- 6	29.	78.0' to 81.0' Run 3.0' Rec 4.6' CG 1.6'
-		micaceous  Shell fragments betow 80.5'  TOP GE ROCK 82.0'  Sandstone-Dark gray, hard,	153	<del>-</del> 6	29.	Run 3.0' Rec 4.6' CG 1.6'
-		Shell fragments befow 80.5'  TOP GE ROCK 82.0'  Sandstone-Dark gray, hard,	153	- 6	29.	CG 1.61
-		TOP GE ROCK 82.0' Sandstone-Dark gray, hard,	153	- <del>.</del> 6	<u>29</u>	0.11.447
-		TOP GE ROCK 82.0' Sandstone-Dark gray, hard,		- 6	<u>29</u> .	0.11.447
2		TOP GE ROCK 82.0' Sandstone-Dark gray, hard,	<del>i</del>	<del>-</del> 6	_	0.13.447
2		TOP GE ROCK 82.0' Sandstone-Dark gray, hard,	<del>i</del>	-, 6	_	0.13 #45
2		Sandstone-Dark gray, hard,	<u></u>	6		D 11 #15
2	1111	Sandstone-Dark gray, hard,	i	i	i	Pull #15
2		Sandstone-Dark gray, hard,	-i		1	81.0' to 84.0'
						Run 3.01 Rec 3.01
•		LOILOIEUU3	100	į		
1	• • • • • • • • • • • • •	02,02,000				
			!	•		
+				i		
•				+	5	Pull #16
•		Sandstone-Dark gray, fine,	†	1		84.0' to 88.0'
	<u> </u>	dense, well cemented	+		WAX	Run 4.0' Rec 4.0'
•		Shade-Dark gray, fissile	[		1 :	
,		bedded, micaceous				
	===		100	7	1 1	
	===				4	
					:	
5 .					<u> </u>	
		BOTTOM OF HOLE 88.01	:	1		
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,						
•			į.			211
			bedded, micaceous	bedded, micaceous	bedded, micaceous	bedded, micaceous  100 7 WAX 2

RILLING	LOG	(Cont	Sheet)	ELEVATIO	ON TOP OF HOLE 60.1			Hole No. 72
- t · T					INSTALLATION			SHEET 2
Looper	Riv	er Red	iy <b>e</b> rsi	on	St. St	tephen, S	5,C,	OF 7 SHEETS
EVATION	DEPTH	i			IFICATION OF MATERIALS	% CORE	BOX OR SAMPLE NO	Drilling time water to depty of a weathering its if opening in
	126	1 .	1		<u>d</u>	į e	. JAR	. <sup>к</sup>
		<b>31 1 1 1</b>			sand, wet,			
		╡┇┥┇┪			some laminae and	1	•	
		JI♦I♦	•1	> ome	random pockets			
		∃I∳I∳	•.					Fi <b>s</b> htail
	14	<b>Ⅎ</b> ͳ♦ͳ♦	•1					
		1111	•'					
		-1111						
		7 1 1	••			<del></del>		<u> </u>
		3111	•					Drive #1
	16	:\I\I	•				,	15.0' to 16.5'
		⋾┥┇┥┇					6	Blows: 40
		:+I+I					<del></del>	
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	- 0	Ⅎ⋠┞⋠┞	:					
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		11111				:		Fishtail
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	20	<b></b> ╡┇∳┇∳	}			! 	·	
		Ⅎ┇∔┇╁	-					Drive #2
,		Ⅎ℟Å℟⅃	1			i	7	20.0' to 21.5'
1		-1111				į	<b>,</b> ' i	Blows: 102
		7 <b>11</b> 1	j				<u> </u>	
1	22	1414[				i	1	
		<b>                                     </b>				}		
i	-	╡♦┇♦┇						
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	_	<b>┧</b> ┩┇∳┇						Fishtail
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	24	Ⅎ┇┞┇┪	]			1		
	-	Ⅎ┇ϯ┇ϯ	-			1		
		<b>†1</b> †1F					!	
:	_	<b>]</b>	1				<del></del>	Drive #3
	-	7 <b>1</b> † <b>1</b> †	1			1		25.0' to 26.5'
	26	IIII	i				8	Blows: 79
		∃I∳I∳						
		╡┇╅┇╅						
	-	╡┇┩┇┪	1				ļ .	
		╡╏┦╏╏	1				i 1	Fishtail
	28	1111		ntin	ued on Sheet #3	<del>-</del> -	<del></del>	
	_	-i -i	60	MILIN	ued on Sheet #3			
		-				1		415
		1	1					2/3
		. d 				,		

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		,	sheet)	60.	1			Hole No. 72
PROJECT	- n:				LATION C+ O		s (	SHEET 3
LOODE		er Red	ivers	CLASSIFICATION OF MATER (Description)	St. Ster	% CORE	BOX OR	REMARKS (Drilling time, water loss, depth of
	28ь		!	d	] ;	ERY e	JAR	ueathering, etc., if significant)
+:	<b>.</b> <u>.</u> .	1///	SM-G	ray, <b>&amp;an</b> d, dense,	•		1 =	1
	_			rgillaceous,	,			  -
				nterbedded with c ayers.	:Tay			
			1 ` 1	4,0.3.			!	<u> </u> 
	30		1					Drive #4
			4					30.0' to 31.5'
			1				9	Blows: 101
	32	1///	1				<u>{</u>	
		///	<del>1</del> 1				:	Fishtail-Refusal
~_1	-		1		· · · · · · · · · · · · · · · · · · ·			
		1/.//		ray, sand, dense,				Pull #1
	34	9/19		irgillaceous, inte with clay layers.	rbedded: 			33.01 to 37.01
	J	1.//.		Layers (CH) inte	: rhedded '			Run 4.0' Rec 1.4'
		4/1/		sand.	, bedued			
		11/1		:Clay layers cont		35	10	·
		1///		slickensided sur from 33.01 to 52		,,		
	36	4/1/0	<u>!</u>		!			
			,		:			
			•				↓	
		:///	:		!			Pull #2
	<b>3</b> 8	1/.1	;					37.0' to 40.0' Run 3.0' Rec 3.0'
		1//	:					Rull J. C. Rec J. C
	-				1	100		
	-	Y/•//			1		вох	
	1.0	1/0/	;				1 JAR	
	40	1///	† †		+		111	011 #2
		1.//.	·		i			Pull #3   40.0' to 43.0'
		///	<b>!</b>				<u> </u>	Run 3.01 Rec 3.01
		19/	,			100		
	42	1/2	,		,			
		(1//	!	· ·	!		<u> </u>	1
		4//.	,				$\Box$	
		¥/•//	•		i		вох	Pull #4
	44	1.1					2	Continued
			C	ontinued on Sheet	#4			
		•			0		:	•
							I	
		•					İ	214

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	100	(Cont	Sheet) ELEVATION TOP	60.1		······································		Hole No. 72
1.81			diversion	INSTALLATION	Stephen,	S . (	С.	м <del>ент <u>Д</u> [ок / мень</del>
EVATION	DEPTH	LEGEND	CLASSIFICATI	ON OF MATERIALS	% CORE RECOV	BOX SA/	ORI MPLE:	REMARKS Deilling time water is aspited weathering the result is more as
	44 h		layers (0 from 33.0	ous, led with clay (H)-Clay layers I' to 52.0'	63	PUX	RALŁ	Pull #4 43.0' to 46.0' Run 3.0' Rec 1.9' CL 1.1'
	48		slickensi	ded.	60	1	12	Pull #5 46.0' to 49.0' Run 3.0' Rec 1.8' CL 1.2'
	50					BOX		Pull #6 49.0' to 52.0' Run 3.0' Rec 0.6' CL 2.4'
	52				10	,	13	Pull #7 52.0' to 55.0'
	54				47		14 _	Run 3.0 Rec 1.4 CL 1.6
	56				53			Pull #8 55.0' to 58.0' Run 3.0' Rec 1.6' CL 1.4'
	58		Sandstone se	am at 59.0'	40	B0X 3	-	Pull #9 58.0' to 63.0' Run 5.0' Rec 2.0' CL 3.0'
	60	1/./2	Continued	on Sheet #5				

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	LOG	(Cont S	heet) ELEVATION	60.1				Hole No. 7	2
ROJECT	- D::	. بر د ه	one! ==	INSTALLATION	C+a=b=				SHEET 5
LOODE	DEPTH	LEGEND	ersion CLASSIFI	CATION OF MATERIALS (Description)	Stephen. % CORE RECOV. ERY	BOX	OR APLE	(Drilling time, w.	iter loss, depth of
	60 ь	c		<u>d</u>	ERY	BOX	o. Jar	weathering, etc.	
	62		· argilla	and, dense, aceous, dded with cl <b>a</b> y			15	Pull #9 Continued	- <del>-</del>
	64							Pull #10 63.0' to 68. Run 5.0' Rec CL 3.8'	
	<b>6</b> 6				22	вох 3	16	,	
	68		•					Pull #11 68.0' to 71. Run 3.0' Rec	01
•4	70 _		saturat Some ligni	nd, dense, ed, tic-type fragment	90 s		17	CL 0.31	2.1
	72		at 70.0 <sup>1</sup>					Pull #12 71.0' to 75. Run 4.0' Rec CL 0.4'	0' 3.6'
	74				90	BOX	18		
;	76		Continue	on Sheet #6			10	Pull #13 Continued	
;		•						é	216

	Cont Si	elevation top of Hole				Hole No. 72
<sup>ECT</sup> <u>Cooper River</u>	Rediv	ersion St. St.	ephen,	S.C		isheet g Low / Sheets
		CLASSIFICATION OF MATERIALS	% CORE	80	OR	REMARKS
i 1	LEGEND	(Description)	RECOV		MPLE ' 10	Drilling time water less deper le ueathering etc. if menitivant
76 h		<u>d</u>	↓ e	BOX	, RAL	K
1	1111	SM-Gray sand, dense,		1	l	Pull #13
= =	1111	saturated	100	i		75.0' to 78.0'
	1111		: 100	1	:	Run 3.0' Rec 3.0'
: 4	<b>       </b>			i		
78	1111			-		
	•••		İ	вох		Pull #14
1	₿₽₿₽¦		i	; 4	l	78.0' to 81.0'
	♦1♦II		1	1 !	1	Run 3.01 Rec 3.01
· •	<b>   I   I  </b>		100			
80	∳I∳I ⊨				19	
	∳I∳I │		1	!	<u> </u>	
-4						
	111				+	Pull #15
1	• I • I :					81.0' to 84.0'
82	∳I∳I ⊨		!	t		Run 3.0' Rec 0.0'
:	∤T∳T⊹		0	ĺ	:	CL 3.0'
-1	111					
4,	1111					
4,	<b>┆</b> ┞┪┞	CM Darily and		i		
84	1111	SM-Dark gray sand, dense, argillaceous, calcareous	<u> </u>		1	
. =	• • •	with shell fragments.	,		li	Pull #16
· 1						84.0' to 88.5'
	1111				20	Run 4.5' Rec 1.6'
	<b>┆</b> ┞┋		1	[ ]	ĺi	CL 2.9'
86	1111				!	
	111		30			
	111					
	<b>         </b>			1 1		
·	1111			вох		
88	1			5		
: 4,						
· ‡,	<b>, † , †</b>	TOP <b>6E</b> ROCK 89.01		Ţ		Pull #17
		Sandstone-Gray, dense,	1			88.5' to 93.5'
: =		argillaceous		: ]		Run 5.0' Rec 4.5'
. 90			4		l į	CL 0.5'
7		Shale-Dark gray, dense,	90			
1.	==	fissile bedded, micaceous			WAX	
; ‡-	==				1	
† !		Sandstone seams at 91.4' and 93.3', 96.3' and 97.0'			WAX	
92 ==	=-		<del> </del>	<u>                                      </u>	2	
	!	Continued on Sheet #7	1		ř.	
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			1	l		<b>.</b>
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1	1				i	~-/

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RILLING	LOG	(Cont S	heet) ELEVATION TOP OF HOLE 60.1		_	Hole No. 72
ROJECT			INSTALLATION			SHEET 7
Coop	er Riv	er Red	iversion St.	Stephen	<u>, s.c.</u>	OF 7 SHEETS
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS. (Protription)	RECOV	BOX OR SAMPLE NO	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant
<u> </u>	92 b		d	ERY e	BOXUAR.	
	130		Shale-Dark gray, dense,	Ī	1 1 2 2	Pull #17
		1 <u></u> i	fissile beaded,	*	BOX WAX	Continued
			micaceous	:	5 2	
						Pull #18
	94					93.5' to 98.5'
	1				.   !	Run 5.0' Rec 5.0'
	96					
	, 30 _	1		100	вох	
				, 50	6	
	1					
		1				
	<sup>1</sup> 98					
-38.4	-			:	i	
- 30.4	!		BOTTOM OF HOLE 98.51		+ +	
		'	borron or note 30.5	1		
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Hele No. 73

					Hole No.	
DRILLING LOG	DIVISION	THEYALL				SHEET
PRILLING LOG	South Atlantic	<u> </u>	t. Step	hen, S	.C. 4" Aquare Am	OF 5 SHEETS
		10 SIZE	AND TYP	E OF BIT	411 Aquare And <b>SHOWN (ТВМ <sub>от</sub> MS</b> Z	er, 4X5: Con
COOPER RESERVE	Station)	- MS				ď Shelb; Tub (σ'i≀is iu
Sia. 602+00. 12	O' Left <b>of</b> Centerline			ER'S DESI	GNATION OF DRILL	.12 (17 12)
CHILLING AGENCY		CI	1E - 75			
Sugarnat Distri	. t		AL NO. OF DEN SAMP	OVER-	DISTURBED	UNDISTURSED
and file number	73					
NAME OF DRILLER			AL NUMBE			
		IS. ELE	VATION GI		44.5	
DIRECTION OF HOLE		16. DAT	E HOLE		6 May 75 ,	6 May 75
X WERT CAL THIS CIN	DEG. FROM VER	17 81 6	VATION TO			<u> </u>
THE KNESS OF LEABUR	DEN 73.31				Y FOR BORING	
DEATH ORICLES NTO AL	1.7'		ATURE OF			• •
TOTAL DEPTH OF HOLE	75.01		arles !			
EVATION CEPTH LEGE	CLASSIFICATION OF MATE	RIALS	& CORE	BOX OR SAMPLE NO.	REMA	AKS
	(Description)		RECOV-			ter loss, depth of , if significant)
- *			<u> </u>	JAR	BOX	
	ML-Silt, fine, Black,				4" Square	: Miller
	with some organic		l	1		
	material		1	<del></del>	l	
	<b>.</b>		1		Drive #1	t
	SM-Sand, Gray, silty,	fine.		1	1.0' to 2	
•					Blows: 51	
╗┥╽┥	$\mathbf{I}$		1		ļ	
-i • Y •	7		İ	-	Fishtail	i
,	<b>T</b>			ł	1 13000	
· · =	St. Sili		+			
	CL-Silty, clay, gray		1		} }	
· -///			l			
7//			]			
			1			
			İ	İ	Drive #2	
779	SC-Sandy clay, Tan an	d Red	Ī	2	5.0' to 6	.51
6 - 79	with clay pockets		ľ	~	Blows:23	1
	•					
<b>1</b> /2	<b>9</b>		ŀ			
			ł	ł .	Fishtail	ł
7.99						
				1		
	<b>9</b> /					
	<b>9</b> 1			]		
	<b>9</b> 1					
799						Ì
7,9						
10	$\checkmark$				<u> </u>	
	<b>51</b>			1	Drive #3	ł
77	SM-Sand, gray, dense,			3	10.0' to	11.5'
	Argillaceous, inte			د	Blows: 8.	
1///	clay layers	1 050080	ĺ			
-///	Cray rayers				Fishtail	
112	<b>*</b>	<del>_</del>	<del> </del> -	<b>⊢</b> −		<del> </del>
. 7	Continued on Sheet				BLOWS PET	FOOT 7
	NOTE: Soils field clas	sified		N <sub>1</sub>	umber require	
the state of the s	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	. IIndefa	PK	1 -		
	in accordance with the Soil Classification S	a Ourra	•	[ 1:	a" ID splitsp ummer falling	oon w/140 15.

OJECT		(00111 -	heet) ELEVATIONS TO					. '	Hole No.		
Coop	oer Ri	ver Red	liversion	( N ) X	rice History	onen	v. C.			SHEET 2	
LEVATION	DEPTH	LEGEND	* LAS ++ - *						RE Drilling time, weathering, e	MARKS water loss, depth of i. if significant;	
<u>-</u>	12 b	10707	5 5				· 57	.80×			
		1///	SM Sapar 10 Arg 11 c						Fishta	i l	
	Į.	1///	che te						}		
	ĺ	1///									
·	14	1//									
!		1//						1	ĺ		
!	[ [	1/1/									
!	1	1//	i I					-	Drive		
	16	1///					4		15.01 Blows:	to 16.51	
		1//					•		biows:	1.40	
i	i -	14%					5 c arr 15	+	C:-1.	: 1	
		1/9/9							Fishta	1.1	
	18	1///									
į	10	1/1/					1		j		
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	_	1//4				;	•	1			
į.	20	1///				•· ·· · • · · ·	<del></del>	-	Drive#	5 20.81	
;		9///					<i>t</i> ,	:	20.01 t Blows:	6 20.81 150/0.81	
i		///				33.3		.	Pull #1		
	-	1///					·		20.81 t Run 1.2		
!	22	1///					4		Rec 1.0		
1	-						ı	}	Pull #2 22.0' to		
į		1///					:		Run 4.0	1 Rec 3.41	
ì	-	1.//							(L 0.6	ı	
i	24	///				$t,\epsilon_i$		. 1			
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						1	. 6				
, i		1//									
	26	1//					· -			- <del></del>	
!		1//						[	Pull #3	- 20 01	
								1	26.01 to Run 4.01	30.0' Rec 3.5'	
	-	///						Ì	CL 0.5	1	
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RILLING	LOG	(Cont S	heet) ELEVATION TOP O	45.3			-	tole No. 73
RUIECT				INSTALLATION	nhen G	. r		ेऽम€हर <b>3</b> † ज 5 - ऽसहराऽ
Coope	er Ri	ver Red	iversion	St. Ste		BOX OR		REMARKS
ELEVATION 1	DEPTH	LEGEND		N OF MATERIALS	RECOV	SAMPLE		Diffing time is sterily of the to-
. :	28 is			d	ERY	JAR	вох	
	20	11/1/	SM-Sand, gray		•	•		Pull #3
		%///	Argillaceo	, dense, us, interbedded				Continued
		<i>7.</i> 7.7.	clay layers				1	Continued
		1.1.1.	0.0, .0,0	•			•	
		1././4						}
	30	4/9/4				- 7		
		4/1/					•	Pull #4
		1///.						30.0' to 35.0'
		11/1						Run 5.0' Rec 4.5'
		1.7.1.	Small sandsto	ne seam at 31.0	1			CL 0.5'
	20	1/./4						
	32	1/9/1						
		1///	•					
		1/1/			00			
		1///	Sandstone sear	n at 33 Ol	90			İ
		1///	Janustone Sedi	" at )),U				
	34	1././	•					
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		1/1/	•			- 8	. 3	
		1/1/	Sandstone sear	n at 35.0'			. •	Pull #5
		1/./.		·				35.0' to 40.0'
	36′	1/1/9	1					Run 5.0' Rec 4.0'
		3/9/9	Sandstone sear	n at 36.1'				CL 1.0'
		3/1/						
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	40	1/./.	•		1	i		L
		1././	l			-		Pull #6
		1./1/4			1	i		40.0' to 45.0'
:•5		1/1			_ <del> </del>	9	۲	Run 5.0' Rec 0.7'
• •		1414	SM-Sand, gray	dense.	Ī		1	CL 4.3'
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	42	# I † I	shell fragm		}	ŀ	: 2	
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RILLING	LOG	(Cont	Sheet) ˈ	ELEVATION TOP OF HOLE	45.3			н	lole No. 73	
UECT	-		-		INSTALLATION					SHEET 4
Coop	er Riv	er Rec	ivers	ion	St.	Stephen,	s.c.			OF 5 SHEETS
EVATION	DEPTH	LEGEND	1	CLASSIFICATION OF (Deuripion		ERY	BOX OR SAMPLE NO. JAR	BOX	REMAI Drilling time, wai weathering, etc.,	RKS ter loss, depth of if significant)
· · <del>•</del>	44 b	1111	<del></del>	d			JAIN	DUX	Pull #6	
	i	11919	SM-Sa	nd, gray, der	ise,	. [	1		Continued	1
	: -	11414		gillaceous, v		1				
		] <b> </b>	1 1	agments, calc	careous		1	1	Pull #7	
	i -	11414				ļ	l		45.0' to	50.01
	46	14141	j					İ	Run 5.01	Rec 1.31
	70	<b>    </b>				İ			CL 3.7'	
	-	<b>       </b>	1			(			1	
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-05.2	-	ĭ∳Ĭ∳Ĭ	-						50.0' to	55 01
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	_	<b>↓⊺↓</b> ∑₺	1				1		55.0' to	60.01
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RILLING	LOG	(Con	it S	heet) ELEVATION	I TOP OF HOLE	45.3			ŀ	tole No. 73		
OHC					, IN	STALLATION					SHEET 5	
Coc	oper	River	Re	diversion		<u>St. Sie</u>	phen, S	S.C.			OF 5 SHEETS	
ELEVATION	1				(Description)		% CORE RECOV ERY	BOX OR SAMPLE NO JAR	i	REMA Drelling time us uesthering, etc.	iter loss depths of it significant,	
	62			SM-Sand,	gray,dens	e, wet	72	, JAN.	3	Pull #10 60.0' to Run 5.0' CL 1.4'	65.01	
	64							13		Pull #11 65.0' to Run 5.0'		
-23.7	: : :68 _						48	14	4	CL 2.6'	NCC 2.4	
				SM-Sand, argill clay s	gray, dens aceous, ir eams, mica	terbedded		. 15		Pull #12 70.0' to Run 5.0'	75.0' Rec 2.4'	
20.0	72 -						48			CL 2.6'		
- 28 . 0 - 27 . 7	74 - . 75			Sandstone- clay-	-Gray, den shale laye							
				BOTTOM O	F HOLE 75.	0'				2	23	

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Hole No. 74

DRILLING LOG South Atlantic St. Stephen, S.C. OF 7 SHEETS  PROJECT  Cooper River Rediversion OCATION (Coordinates or Station) Station 602+00, 250 Right of Center Line of MANUFACTURER'S DESIGNATION OF DRILL							Hole No.		
Marie   Mari								SHEET 1	
CONTINUED   CONT							. 2 7 6 ^	<u> </u>	
Station 602+00, 250' Right of Centerine		<b>+</b>	10 SIZE Ti TATI	AND TYPE	E OF BIT	HOWE 7	TBM ~ Mer	er & 4X5	
Station 602+00, 250' Right of Center Line 1. Americal Spesignation of PRILL Sharp and Brains Hitel 2. American Spesignation of	LOODER RIVER REC	iiversion		511 41		22			
SAVANDAD D. STRICT  SAVAND	Station 602+00.	250 Right of Centerline	IT MAN	JE ACT URE	A S DESI	GNATION	OF DRILL		
Savannah   Strict	DRILLING AGENCY								1
Marcon   M					OVER-	OUTU	RED	UNDISTURE	ED
T.W. Scott  T.W. Scott  T.W. Scott  T.W. Scott  TRICKNESS OF OVERBURDEN  BY PARTICLE STREET OF OVERBURDEN  BY PARTICLE STREET OF OVERBURDEN  BY PARTICLE STREET OF OVERBURDEN  BY PARTICLE STREET OF OVERBURDEN  BY PARTICLE STREET OF OVERBURDEN  BY PARTICLE STREET OF OVERBURDEN  BY PARTICLE STREET OF OVERBURDEN  BY SCOT	HOLE NO (As shown on dra	wing title	E UR1	DEN SAMPI	LES TAKE	N : 17	Jars	2 Wax	
T.W. SCOTT    SECULIDAD OF MOLE   15 - APTED		Z4.	14 (15.7)	AL HUMBE	R CURE E	OXES	1		7
SC-1 an and Red   Solution   So		•					£1 Q1		-1
100   100		·						MPLETED	
### Continued on Start ### 100   100		ED OFG FROM VENT	16 UA11	EHOLE					5
## Continued on Small ##   100	<b>X</b> ************************************		17 ELE	VATION TO			<del></del>		
SC-1 an and Red   S and / Increases with denth   S and / Increases with   S and / Increases with denth   S and / Increases with denth   S and / Increases with denth   S and / Increases with denth   S and / Increases with denth   S and / Increases with denth   S and / Increases with denth   S and / Increases with denth   S and / Increases with denth   S and / Increases with denth   S and / Increases with denth   S and / Increases with denth   S and / Increases with denth   S and / Increases with denth   S and / Increases	THICKNESS OF OVERBURE	DEN 87 71	10 707						7 .
### Pull #2    SC-lan and ###   SC-lan and ###   SC-lan and ###   SC-lan and ###   SC-lan and ####   S	DEPTH DRILLED INTO RO	CK 5.31	18 101	AL CORE !	WIFE	TFOR BO			<del>/ *</del>
EVATION DEPTH LEGEND CLASSIFICATION OF THE PARTY OF THE P	TOTAL DEPTH OF HOLE								- 1
SC-lan and Red   S   SC-lan and Red   S   S   S   S   S   S   S   S   S		<del></del>				· · · · · · · · · · · · · · · · · · ·	REMAR	iks	
SC-lan and Bed   S   SC-lan and Bed   S   S   S   S   S   S   S   S   S		(Description	,	PECOV-	S/MPLE	(Deilli	ng time, wate	r loss, depth	of
SC-lan and Red   South Clay:   Sand Fine reasons with depth   100   South Fine reasons with depth   100   South Fine reasons with the land of the la	• 0 0 0				1	~~	9	significant	1
Solid Clay:   Sand / increases with depth   100	-1929			1		]	♣11 Squa	are Auger	
Sand / increases with denth	<b>= 1973</b>	<b>V</b>		ı İ					t
Pull #1	-(%)	,	i in	į.	1	J-1			}
0.0' to 3.0' Run 3.0' kec 3.0'  Run 3.0' kec 3.0'  Run 3.0' kec 3.0'  Run 3.0' Rec 3.0'  LAB CLASSIFICATION Spl. Elev. Class B-6 88 -8 20.8'-26.8' CH  Pull #3 6.0' to 9.0' Run 3.0' Rec 3.0' LAB CLASSIFICATION Spl. Elev. Class B-68 -68 SM B-8 20.8'-26.8' CH  Pull #3 6.0' to 9.0' Run 3.0' Rec 3.0' LAB. CLASSIFICATION Spl. Elev. Class B-13-0.2L-11.8' CH B-14 -20.0'-30.2' Sc  Pull #4 Continued  J-Jar Sample B-Bag Sample W-Waxed Sample		<b>/</b>			1		Pull #1	ì	F
Run 3.0' Rec 3.0'  Run 3.0' Rec 3.0'  Run 3.0' Rec 3.0'  Pull #2 3.0' to 6.0' Run 3.0' Rec 3.0'  LAB CLASSIFICATION Spl. Elev. Class B-6 33.8'-36.8' SC B-688 SM B-8 20.8'-26.8' CH Run 3.0' Rec 3.0' LAB CLASSIFICATION Spl. Elev. Class B-13.0.2'-11.8' CH B-14-20.0'-30.2'  B-3  Pull #4 Continued  J-Jar Sample B-Bag Sample W-Waxed Sample				100		į	0.01 to	3.01	t
## 1 Pull #2 3.0' to 6.0' Run 3.0' Rec 3.0' LAB CLASSIFICATION Spl. Elev. Class B-6 33.8'-36.8' SC B-68 S SM ## 2 B-8 20.8'-26.8' CH  M.C. #16.2    Pull #3 6.0' to 9.0' Run 3.0' Rec 3.0' LAB. CLASSIFICATION Spl. Elev. Class B-13-0.2'-11.8' CH B-14-20.0'-30.2' B-3    Pull #4 Continued    J-Jar Sample B-Bag Sample W-Waxed Sample	12			;	j		Run 3.0	)' Rec 3.	01
Pull #2 3.0' to 6.0' Run 3.0' Rec 3.0' LAB CLASSIFICATION Spl. Elev. Class J-2 B-3 48.8'-51.8' SC B-6 33.8'-36.8' SC B-6 33.8'-36.8' SC B-6 88 SM B-8 20.8'-26.8' CH Pull #3 6.0' to 9.0' Run 3.0' Rec 3.0' LAB. CLASSIFICATIO Spl. Elev. Class B-13-0.2'-11.8' CH B-14 -20.0'-30.2' SC  Pull #4 Continued  J-3  Pull #4 Continued  J-Jar Sample B-Bag Sample W-Waxed Sample W-Waxed Sample	7.29				l	1			F
Pull #2 3.0' to 6.0' Run 3.0' Rec 3.0' LAB CLASSIFICATION Spl. Elev. Class J-2 B-3 48.8'-51.8' SC B-6 33.8'-36.8' SC B-6 33.8'-36.8' SC B-6 33.8'-26.8' CH Pull #3 6.0' to 9.0' Run 3.0' Rec 3.0' LAB. CLASSIFICATIO Spl. Elev. Class B-13-0.2'-11.8' CH B-14 -20.0'-30.2' SC  Pull #4 Continued  J-3  Pull #4 Continued  J-Jar Sample B-Bag Sample W-Waxed Sample					}				Ì
Pull #2 3.0' to 6.0' Run 3.0' Rec 3.0' LAB CLASSIFICATION Spl. Elev. Class J-2 B-3 48.8'-51.8' SC B-6 33.8'-36.8' SC B-6 33.8'-36.8' SC B-6 88 SM B-8 20.8'-26.8' CH Pull #3 6.0' to 9.0' Run 3.0' Rec 3.0' LAB. CLASSIFICATIO Spl. Elev. Class B-13-0.2'-11.8' CH B-14 -20.0'-30.2' SC  Pull #4 Continued  J-3  Pull #4 Continued  J-Jar Sample B-Bag Sample W-Waxed Sample W-Waxed Sample	-/5/9			Ì	ļ	R+ 1	•		ŀ
3.0' to 6.0' Run 3.0' Rec 3.0' LAB CLASSIFICATION Spl. Elev. Class B-6 33.8'-36.8' SC B-688 SM B-2 B-8 20.8'-26.8' CH Pull #3 6.0' to 9.0' Run 3.0' Rec 3.0' LAB. CLASSIFICATION Spl. Elev. Class B-688 SM B-12 B-8 20.8'-26.8' CH Pull #3 6.0' to 9.0' Run 3.0' Rec 3.0' LAB. CLASSIFICATION Spl. Elev. Class B-13-0.2'-11.8' CH B-14 -20.0'-30.2' SC  Pull #4 Continued  J-Jar Sample B-Bag Sample W-Waxed Sample					1		Pull #2	<del>)</del>	
Run 3.0' Rec 3.0'  LAB CLASSIFICATION Spl. Elev. Class B-6 33.8'-36.8' SC B-6 8 SM B-8 20.8'-26.8' CH Pull #3 6.0' to 9.0' Run 3.0' Rec 3.0' LAB. CLASSIFICATION Spl. Elev. Class B-13-0.2'-11.8' CH B-14-20.0'-30.2' SC  Pull #4 Continued  J-Jar Sample B-Bag Sample W-Waxed Sample					ţ	1			Ì
100	4 - 7				1				01
100				Ì		}	1		
## Description of the property	<b>-79</b>			100		1			
8	7.5			100	1	12			
8	7.5					~ _	0 6 22	.0 -51.0 12 -26 -81	50
M.C. 766.2  M.C. 766.2  M.C. 766.2  M.C. 766.2  M.C. 766.2  M.C. 766.2  M.C. 766.2  M.C. 766.2  M.C. 766.2  M.C. 766.2  M.C. 766.2  Pull #3 6.0' to 9.0' Run 3.0' Rec 3.0' LAB. CLASSIFICATION Spl. Elev. Class B-13-0.2L-11.8' CH B-14-20.0'-30.2' SC  Pull #4 Continued  J-Jar Sample B-Bag Sample W-Waxed Sample	- 279					[	D 4 (2)	.0 - 30.0	Sul C
## N.C. 616.2    Pull #3   6.0' to 9.0'   Run 3.0' Rec 3.0'   LAB. CLASSIFICATION   Spl. Elev. Class   B-13-0.2'-11.8' CH   B-14-20.0'-30.2'   SC	6 777			}	ļ	<b>a</b> -2		81-26 8	CH
8				<b></b>	1, ,				
Run 3.0' Rec 3.0' LAB. CLASSIFICATIO Spl. Elev. Class B-13-0.2L-11.8' CH B-14 -20.0'-30.2' SC  Pull #4 Continued  J-3  Pull #4 Continued  J-Jar Sample B-Bag Sample W-Waxed Sample	-/-/			İ		l			t
LAB. CLASSIFICATIONS Pl. Elev. Class B-13-0.24-11.8' CH B-14-20.0'-30.2' SC  Pull #4 Continued  J-3  Pull #4 Continued  J-Jar Sample B-Bag Sample W-Waxed Sample		<b>&gt;</b> ]		j	/010.2	1			01
Spl. Elev. Class B-13-0.24-11.8' CH B-14-20.0'-30.2' SC  Pull #4 Continued  J-3  Continued  J-Jar Sample B-Bag Sample W-Waxed Sample		<b>&gt;</b> ]		İ		1	1		
B-13-0.24-11.8' CH B-14-20.0'-30.2' SC    B-3	-179Z			100	1	}			
B-14 -20.0'-30.2' SC  100  Continued on Sport all Total Continued  J-3  J-3  J-Jar Sample B-Bag Sample W-Waxed Sample				100					
TOTE: 11 CONTROL WITH the Point I	7/			1		l			
Continued on Sport at:    TOTE:		$\forall$		}		j	J P- 14 -	20.0°-30.	
Continued on Sport at J-3 Continued  Continued on Sport at J-3 J-3 J-3 J-Jar Sample B-Bag Sample J-3 J-3 W-Waxed Sample	7.79	lacksquare				B-3	l .	_	
Continued on Sport #1  Continued on Sport #1  FOTE: 11 from A principle   Jan Sampl	7/1/9	<b>5</b> -1			1		Pull #	4	
Continued on Scort #1  FOTE: 11 Continued on Scort #1  J-Jar Sample B-Bag Sample W-Waxed Sample	4,7	<b>9</b> /		100		1			ł
Continued on Short All  J-Jar Sample B-Bag Sample W-Waxed Sample				100		J-3			}
B-Bag Sample  W-Waxed Sample		Continued on Short Al			Ţ <b></b>		1 7 7 2 5	Samolo	i
In a or to not with the first of W-Waxed Sample	1 1			1		[			t
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RILLING	LOG	(Cont !	Sheet) ELEVATION TOP OF HOLE +57.8			Нс	ole No. 74
DIECT			INSTALLATION				SHEET 2
Coope	r Riv	<u>er Redi</u>	version St. Ste			·	of 7 smeets
EVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	RECOV	BOX OR SAMPLE NO	(D	REMARKS rilling time, water loss depth of a ceathering etc., if significant o
46.3	10 ь 11.5		SC-Tan and Red, sandy clay, Sand % increases with depth	100	; ; ;	•	Pull #4 9.0' to 12.0' Run 3.0' Rec 3.0'
40.5	12 _		SM-Tan and Red sand, moist			B-4	-4x5½" Core Barrel
	14 -			0.0	to the state of th		Pull #5 12.0' to 15.0' Run 3.0' Rec 0.0' CL 3.0'
	16 -		; ; ;	0.0			Pull #6 15.0' to 17.0' Run 2.0' Rec 0.0' CL 2.0'
	18						3" ID Splitspoon 17.0' to 20.0' Drive #1 Run 3.0' Blows: 71
•	20		SC Toward Pad alama	100		<b>3=4</b> J~5	Pull #7 20.0' to 21.0'
			SC-Tan and Red clayey sand, with gravel		M.C.	B-5	Run 1.0' Rec 1.0' Pull #8 21.0' to 24.0'
•	22 -		ML-Tan and Gray clay,	100	41.2%	: : J-6	Run 3.0' Rec 3.0'
	· ·		Fissile bedded, Micaceous		'  -	J-7 B-6	
	24		SC-Tan and Red clayey sand. SC-Gray sandy clay, Micaceous	100	: !		Pull #9 24.0' to 25.0' Run 1.0' Rec 1.0'
	2			66			Pull #10 25.0' to 28.0' Continued
		•	Continued on Sheet #3	:			225
		:					

RILLING	LOG (Cont Sheet)	ys and has them add to his		H	ole No. 74
	er River Rediversio	on .	<u>en, 5 5</u>	<b>.</b>	OF 7 SHEETS
LEVATION	DEPTH LEGEND	and the same <b>vf</b> t of the transfer		7.1	REMARKS  Strong time, water law depth of carboning con- it organity and
•	-	it is a second of the second o		i	Poll 610 25 0' to 28.0' Run 3 0' Rec 2.0' Cl 1.0'
	28	- <del>1</del>	• •	1 . 4	Pull #11 28.0' to 31.0' ('0' ) (' Rec 2.0'
	30				
	32		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ы. <i>)</i> і	Run 3.01 Rec 2.51 CL 0.51
	34			, q	34.0' to 37.0' [ Run <b>3.0</b> ' Rec 2.0' [
	36			в-8	CL 1.0'
	38				Pull #14 37.0' to 40.0' Run 3.0' Rec 3.0'
	40			J-10 B-9	
	42			; !	Bu ) 01 for 3.01
				!	226

RILLING L	OG	(Cont	Sheet) ELEVATION	+57.8			Ho	le No. 74
enti.	. د	. د د. ۵ س	luarrian	INSTALLATION	tephen, S			jart i Jart 7 Setti
_Cooper_!	Kive	er Kedi				BOX OR		REMARK'.
ELEVATION D	EPTH	LEGEND	CLASSIF	ICATION OF MATERIALS Description (	RECOV ERY	SAMPLE		alles ame wants solder.
+ +2	ь			d	- E	. 1		. · · · · · · · · · · · · · · · · · · ·
•				ray sand, dense,			- 1	Pull #15
		<b>:</b>		edded with CL-	100		1	Continued
		<b>:</b>	micaced	ous clay layer.	-	-	<u>B-10</u>	
		:+[+[						Pull #16
		:						43.0' to 46.0'
444	+	∃ <b>♦</b> Ĭ♦ĭ	Sandstone	seam at 44.01	66			Run 3.01 Rec 2.01 CL 1.01
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			ı				J <b>-11</b>	
46	ن	-	· ii			-		
		:I†I†	1					Pull #17
		:I+I+	1					46 01 to 49.01   Run = 3.01 Rec 3.01
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		⋾∳┇┿┇	•			-	<u>B-11</u>	
		∃∳Ĭ∳Ĭ						Pull #18
		7 <b>† I</b> † I	. 1				I <b>- 1</b> 2	49.0' to 52.0' Run 3.0' Rec 1.5'
50	C ;	┇┥┨┥┨	NOTE:San	d washing out				CL 1.5'
		╡∮┇∳┇		lucing recovery.	50			1.5
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53	2 .					4		D 11 //10
		7111	1					Pull #19   52.01 to 55.01
		╕┇┿┇┿	' <u>.</u>			I .	!	Run 3,01 Rec 1.51
		<b>                                     </b>	' <u>;</u>					CL 1.51
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		╡┇┥┇┥	•		!	1	J-13	
	-	∃∳Ĭ∳	•			<b>-</b> ,	1 2 1 3	Pull #20
		╡┇┿┇┿	,					55.01 to 58.01
5,6	÷	ĬŧΪŧ	, T		i		•	Run 3.01 Rec 2 91
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		1111	, i		:		1	
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.9	i i		Continue	ed on Sheet #5	. 1			
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DRILLING L	OG (Cont She if	is No 1
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ELEVATION D	!	•
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61	` <b>       </b>	
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COODER RIVER Red   Version   St. Stephen, St.   St.	RILLING	roc	(Cont S				Но	le No. 74
CASSIFICATION OF MATERIALS   CODE   COL OR   Continued   Continu	SIBIT.			INSTALLATION		<b>.</b> .		SHEET F,
SM-Dark Gray sand, dense, with shell fragments, calcareous.   SM-Dark Gray sand, dense, with shell fragments, calcareous.	<u>. Çoop</u>	er.Bize	<u>er Red</u>		Stephen.	S.C.	y	
SM-Dark Gray sand,			LEGEND		RECOV	SAMPLE		illing time water in defire to
dense, saturated, micaceous.  76  78  78  78  78  78  78  79  70  70  70  70  70  70  70  70  70  70  70  70  80	d	746	ATAT	<u> </u>	İ	. t	į	
76   74.6' to 77.8'   Run 3.2' Rec 0.0'   CL 3.2'   Rec 0.0'   CL 3.2'   Rec 0.0'   CL 3.2'   Run 3.2' Rec 0.0'   Run 3.0' Rec 0.0'   CL 3.0'   Run 3.0' Rec 0.0'   CL 3.0'   Run 3.5' Rec 0.0'   CL 3.5'   Lo 85.0'   Run 3.5' Rec 0.0'   CL 3.5'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   CL 3.5'   Run 3.0'   Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 3.5' Rec 0.0'   Run 5.0' Rec 2.9'   Run 5.0' Rec 2.9'   Run 5.0' Rec 5.0'   Run 5.0'	j :		111	dense,	0.0	1	ļ !	
3		74		•			!	74.61 to 77.81 Run 3.21 Rec 0.01
SM-Dark gray sand, dense, with shell fragments, calcareous.   SM-Dor Rock 87.7	:				0.0		! !	
SM-Dark gray sand, dense, with shell fragments, calcareous.   SM-Dark gray sand, dense, with shell fragments, with shell f	İ							
B4		76					J- 16	
82						<u> </u>		
SM-Dark gray sand, dense, with shell fragments, calcareous.  SM-Dark gray sand, dense, with shell fragments, calcareous.  TOP. OF ROCK 87.7' Sandstone-Gray hard, Argillaceous  Shale-Dark gray, fissile bedded, hard, dense.  SM-Dark gray sand, dense, with shell fragments, calcareous.  J-17 [3" ID Splitspoon 50/0." Pull #28 85.1' to 88.0' Run 2.9' Rec 2.9'  B-14 Pull #29 88.0' to 93.0' Run 5.0' Rec 5.0'		80 .			0.0	·		Run 3.01 Rec 0.01
84	;	82 -						
84	1				0.0			Run 3.5' Rec 0.0'
with shell fragments, calcareous.  100  87.7 TOP.OF ROCK 87.7'  38 Sandstone-Gray hard, Argillaceous  31.0 88.8 Shale-Dark gray, fissile bedded, hard, dense.  90 Shale-Dark gray, fissile bedded, hard, dense.		84						
with shell fragments, calcareous.  100  86.  100  87.7  38.  100  87.7  38.  100  88.0' to 93.0'  Run 5.0' Rec 5.0'  80.7  80.	ļ		7.7	SM-Dark gray sand, dense.			J-17	3" ID Splitspoon
29.9 87.7 TOP. OF ROCK 87.7' 38 Sandstone-Gray hard, Argillaceous  BOX 88.0' to 93.0' Run 5.0' Rec 5.0'  BOX 88.0' to 93.0' Run 5.0' Rec 5.0'		86		with shell fragments,				
Sandstone-Gray hard, Argillaceous  B-14  Pull #29  88.0' to 93.0'  Run 5.0' Rec 5.0'  90					100			
Argillaceous  Argillaceous  BOX  BOX  Run 5.0' Rec 5.0'  Run 5.0' Rec 5.0'	29.9	67.7		TOP OF ROCK 87,71				
Shale-Dark gray, fissile bedded, hard, dense.	!	38					B-14	
90	31.0	8.88			100			
		90 .2						
	ļ							229

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KILLING	LOG	(Cont S	heet) ELEVATION TOP OF HOLE 57.8			Hol	le No. 74
D)EC			, NSTALLATION	Stephen	. S.C.		SHEET 7
EVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIAS		BOX OR SAMPLE NO		REMARKS  thing time water has depth of cubering on the against auto-
4	90 ь		d	. "	1 1	• •	, ж
	-		Shale Dark gray, tissile relied, tac dense		1	' W 1	Pull #29 Continued
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			Sandstone laver at 92.51 to	=			
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	LOG	(Cont	Sheet)	ELEVATION TOP OF HOLE 56.6			Ho	le No.	75	
ROJECT				INSTALLATION					SHEET 2	
Coop	<u>er Riv</u>	er Red	livers	ion St. Si	tephen,		<del></del>		OF 3 SHEETS	_
ELEVATION	DEPTH	LEGEND		CLASSIFICATION OF MATERIALS (Description)	% CORE RECOV ERY	BOX OR SAMPLE NO	(D	REMI rilling time, wi ceathering, etc	ARKS uter loss, depth of , if significantly	
•	90b	<u> </u>	L	<u> </u>		L_f	, 	,	<u> </u>	
	'		Sha	le-Dark gray, dense,				Pull #3	3	
	-		. [	hard, fissile bedded,		i	!	Continu	<b>le</b> d	
1		1		micaceous	i	:	· i			
					'		WAX			
	94	<del> </del> _			•	BOX	_2_			
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		1-3-3-	-							
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i					1	†		Pull #4		
i	96	1	•					יים ו	o 100.0' Rec 5.0'	
;	, J.J		7					Nuil 3.6	, ver 2.0.	
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i			-							
			-				WAX			
	_	III.	Lime	estone-Gray, hard,	100		3			
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			1					Run 5.0	' Rec 5.0'	
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		Cont S	1			Hole No. 75
жа Сооре	r Riva	r Redi	version St. Ste	ohen	s (	SHEET 3
LEVATION		LEGEND	CLASSIFICATION OF MATERIALS (Description)		BOX OR	
	108		d Limestone-Gray, hard, fossiliferous	100	BOX 4	Pull #6 Continued
	112			100		Pull #7 110.0' to 115.0' Run 5.0' Rec 5.0'
•	116		(SM)Sand, gray, argillaceous calcareous, micaceous Limestone remnant at 114.5'. Calcareous sandstone layer from 115.0' to 116.0'.		BOX 5 -	Pull #8 115.0' to 120.0' Run 5.0' Rec 1.6' CL 3.4'
	118			32		
·•	120		Limestone-Gray, hard,			Pull #9 120.0' to 125.0' Run 5.0' Rec 4.3' CL 0.7'
:	122		fossiliferous	86	BOX 6	
	124 · 1		SC-Clayey sand, gray, calcareous, argillaceous Limestone seam from 124.4' to 124.8'		<b>0</b> 	
	1		BOTTOM OF HOLE 125.0'			<i>~</i> 33

Hole No. HSTALLATION DRILLING LOG St. Stephen, S.C. OF 3 SHEETS

10. SIZE AND TYPE OF BIT 4X5 Core Bbl & 6" Fisht ail

11. DATUM FOR ELEVATION SHOWN (TEM or MELL) OF 3 SHEETS South Atlantic Cooper River Rediversion
LOCATION (Coordinates or Station) MSL 12. MANUFACTURER'S DESIGNATION OF DRILL Sta.-600+20, 75' Rightoof Centerline CME-75 Sagannah District DISTURBED UNDISTURBED 13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN HOLE NO. (As shown on drawing title 76 14. TOTAL NUMBER CORE BOXES NAME OF DRILLER 15. ELEVATION GROUND WATER T.W. Scott 45.6 16. DATE HOLE 17 May 75 15 May VERTICAL TINCLINED 45.6 17. ELEVATION TOP OF HOLE THICKNESS OF OVERBURDEN 72.5 18. TOTAL CORE RECOVERY FOR BORING 100 DEPTH DRILLED INTO ROCK 40.51 19. SIGNATURE OF INSPECTOR TOTAL DEPTH OF HOLE 113.01 Charles M. Deaver CORE BOX OR SAMPLE NO. CLASSIFICATION OF MATERIALS (Description) REMARKS (Drilling time, water lose, depth of weathering, etc., if significant) ELEVATION DEPTH LEGEND NOTE: Used fishtail bit from 0.01 to OVERBURDEN 70.51. Pull #1 70.51 to 75.51 Run 5.0' Rec 5.0' 72 TOP OF ROCK 72.51 -24.9 Sandstone-Dark gray, dense, 100 calcareous, interbedded with dense clayer shale with fine sand seams, micaceous. Shell fragments to 74.51 Pull #2 76 75.5' to 80.5' BOX Run 5.0' Rec 4.0' CL 1.0' 80 78 . WAX T. T. Ground Surface 1 Date 20 May 75 Bepth to water during drilling l80 . Continued on Sheet #2

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ILLING	roc	(Cont S	heet) ELEVATION TOP OF HOLE 45.6			H	ole No. 76
E ::			INSTALLATION				SHEET 2
Çoop	er Riv	er Redi	version St. Ste	phen,	S.C.	<b>.</b>	TOR 3 SHEETS
VATICITAV	DEPIH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOV ERY	BOX OR SAMPLE NO	+10	REMARKS Delling cone material states of the control
,i	.8g.b		<u> <u>d</u></u>	e e	BOX		ı K
	·		Sandstone-Dark gray, dense, calcareous, interbedded	 	<u> </u>	•	Pull #2 Continued
			with dense clayey shale	 		:	Pull #3 80.5' to 84.5'
			with €ine sand seams, micaceous		1		Run 4.0' Rec 5.0'
•	:82		Shale-Dark gray, hard, dense,	!			CG 1.0'
		===	fissile bedded, micaceous				
			incaceous	125			
				1	вох	:	
	84 _				2	:	
					•		Pull #4
				:	:		84.51 to 89.01
		1 = = =			!	1,437	Run 4.5' Rec 4.5'
	8ύ					WAX 2	
		<u>'</u>		100			
				100	<u> </u>		
	2.0				:	WAX	
<b>o</b> ′·	88		Limestone-Gray, hard,	i	ļ	3	
	•		fossiliferous, ''Honey-Comb''				
	•		Hottey - collip		1		D. 11 #C
	00				i	•	Pull #5  89.0' to 94.0'
	90	田田			BOX	į	Run 5.0' Rec 5.0'
		1			3	!	
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	94	<del> </del>			į		
							Pull #6
	1				вох		94.01 to 99.01 Run 5.01 Rec 4.01
				80	· 4	:	CL 1.0'
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		1	Continued on Sheet #3				
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RILLING	LOG	(Cont	Sheet) Eu	EVATION TOP OF H	45,6			Hole No. 76
OJECT					INSTALLATION			SHEET 3
Сооре	r Riv	er Red	iversio	<u>n</u>	St.	Stephen,	S.C.	OF 3 SHEETS
LEVATION	DEPTH	LEGEND		LASSIFICATION ( Descrip		RECOV.	BOX OR	REMARKS (Drilling time, water loss, depth of
	96ь	С		d d	ion ,	ERY	NO.	weathering, etc., if significant)
<u> </u>	300	١Ù	lima	stone-Gray	hard			Pull #6
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			7					
			₫				]	
			H					Pull #7
		-	7	•				99.01 to 103.01
	100_		3					Run 4.0' Rec 5.0'
			Ц					CG 1.0'
			d d			129		
	i	<del></del>	d			129		
	I I		7					
	102_			•				
	i	<b>‡</b>						
-57.2								
	i –	╡┇┥┇┪			calcareous	s,	1	Pull #8
	1	╡┇┿┇┥		rgillaceou	s r from 103	61		103.0' to 108.0'
	104_	╡┇┥┇		04.21.	1 110111 100		ľ	Run 5.01 Rec 5.01
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	i i	$\exists I   I $	<b>)</b>				1 201	
	_	<u> </u>	•				BOX 5	
	:	<b>51</b> 1/1	•			100	,	<b>,</b>
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		∃₹∳₹₫						
	108_	∃†∳¢						
	,	$\exists$ $\uparrow$ $\downarrow$ $\uparrow$ .					]	Pull #9
		⊒ <b>↑</b> ↓↑,						108.0' to 113.0'
	-	∃ <b>१</b> ∤१,	) i					Run 5.0' Rec 5.0'
-63.7			Lime	stone-Gray	, hard.			
	110_	7-1-	T	fossilife	ous			
		-	<del>-</del>			100		
			7				вох	
		T	<del>-</del>				6	
			<u> </u>					
	112	7	L,					
	112		T					
<i>-46</i> •0	i	175	SM- S	nd grav	aldareous			
7.	113-	<u> </u>	J, 3	nd,gray, th shell	ragments		<del> </del>	
-	1	-4	I BO	TTOM OF HO	IF 113.01	1	1	
	i	<b>⊣</b> i	, 50		,,,,,,	1		236

Hole No. INSTALLATION DRILLING LOG St. Stephen, South Carolina OF 4 SHEETS South Atlantic 10. SIZE AND TYPE OF BIT 4x511 Core Barrel & "" Cooper River Rediversion
LOCATION (Coordinates or Station)
Sta. 598+60, 162' Right of Centerline MSL 12. MANUFACTURER'S DESIGNATION OF DRILL 3 DRILLING AGENCY CME - 75 Savannah District
HOLE NO. (As shown on drawing title and tile number) DISTURBED UNDISTURBED TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN 77 14. TOTAL NUMBER CORE BOXES NAME OF DRILLER 15. ELEVATION GROUND WATER 48.01 T.W. Scott COMPLETED 16. DATE HOLE VIVERTICAL MINCLINED 21 May 1975 : 22 May 19 17. ELEVATION TOP OF HOLE 48.01 . THICKNESS OF OVERBURDEN 75.31 18. TOTAL CORE RECOVERY FOR BORING 43.4 S CEPTH DRILLED INTO ROCK 19. SIGNATURE OF INSPECTOR S TOTAL DEPTH OF HOLE 118.71 Charles M. Deaver % CORE BOX OR SAMPLE NO. REMARKS
(Drilling time, water loss, depth of weathering, etc., it eignificant) CLASSIFICATION OF MATERIALS ELEVATION DEPTH LEGEND NOTE: Fishtail Bit OVERBURDEN Used From 0.01 to 75.31 15 ---Top of Rock 75.31 100 Pull 1 75.31 to 75.71 Sandstone- Dark Gray, Run- 0.41 Argillaceous, Dense, Loose Shells, Soft Clay Seams at Rec- 0.41 76.8' and 77.3' Box Pull 2 - 30.0 75.7' to 80.7' Run- 5.01 100 Shale- Dark Gray, Sandy, Rec- 5.01 Micaceous, Sand Seams at 79.3', 80.6', 81.0', 83.0', and 84.0' Pull 3 80.71 to 85.71 100 Run- 5.01 Rec- 5.01 35.2 Fissile Bedded, Joint Break at 84.71 Sandstone Seam at 85.3', Some Slickensides -- CONTINUED ON SHEET #2

RILLING	FOG	(Cont	Sheet) ""	TION TOP OF HOL	48.0			Hole No.	77
OIEC					INSTALLATION	than C-	uth Ca	rolina	SHEET Z
Coc	per R	iver R	ediversi		St. Step	men, so	BOX OR		OF 4 SHEFTS
LEVATION	DEPTH	LEGEND	CLA	SSIFICATION OF		RECOV.	SAMPLE	(Drilling time, u	ater loss, depth of , if significant)
<b>a</b> !	86	c		ď		ERY	NO		g significant)
+		<u> </u>	Ī	*		:			
į	-	T		Dark Gray,	Fissile	1	1		
,	- ~-	<del> -</del>	Bedded			100	, ,	Pull 4	00 71
		<u> </u>					· i	85.7' to Run- 5.0	
			. <b>'</b> -				Вох	Rec- 5.0	
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:	92-		⊒ Limesto ⊒ UCocuio	ne- Gray. a", Fossil	nard. Liferous	•	i !	Pull 5 <b>90.7'</b> to	95.71
ĺ	-		Glaucon	itic Seams	at 91.01,	92	i !	Run- 5.0	1
:			91.31.	91.6', and	91.8	i		Rec- 4.8	1
	-		1	•		i	[	C1- 0.2'	
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		++++	<del>1</del>				; <b>)</b>	Pull 6	
	98 -	<del>                                      </del>	1			20	: :	95.7' to	100.7'
	-	<del>                                     </del>	‡			88		Run- 5.0	
		+	‡			!		Rec- 4.4 Cl- 0.6	•
	_	<del>                                     </del>	†			i		C1- U.0	
	-	###	4			1	į		
	100-		1			i			
	, 55						i I		
			‡				· '-	D. 11 7	
ı			1			193		Pull 7 100.71 t	0 103 71
			<u> </u>			• •	1	100.7	· (V)./
	103		- 	DED ON SH	FFT -3				
	102 -	]		OLO UN DE	- C - C	·			
i		1	1				. :		
		1	1						220
		1						1	238
		t	1				!		

Q

DRILLING LO	G	(Cont	Sheet)	ELEVATION	TOP OF HO	48.0				Hole No	). 77	
PROJECT	- R	iver F	Redive	rsion		INSTALLATION	Ste	phen,	South	Carolina	SHEET 3	
ELEVATION DEP	тн	LEGEND	T		(Descriptio	MATERIALS		% CORE RECOV ERY	BOX OR SAMPLE NO	(Drilling to	REMARKS  me water has depth of  ig etc. if agrachants	
1 104	2			stone- ilifer		Hard,		123	Box	100.7 Run-	7, Continued 1 to 103.71 3.01 3.71, CG- 0.71	+ + + + + + + + + + + + + + + + + + + +
104			T T T T T T					90	4	Pull {	8 ' to 108.7'	
. <b>10</b> 6 -58,4	5. — 		Gray	, Sand	y, Den	se				Run- ! Rec- ! CI- 0	5.0 <b>'</b> 4.5'	-
-59.4 108	3		-	- #			·		 			
. 110	0		SM-	Sand,	Gray,	Calcareo	ıs	40	Box 5	Pull 9 108.7 Run- Rec-	' to 113.7' 5.0'	
11:	2									C1- 3		
-66.3 114	4 1		Dens Lime	e	······································	Calcared Fossil			Box 6	Pu11		
110	1		SM- Loos Sean	Sand, se Shel n at <b>11</b>	1s, Sa 6.3'	Calcareo ndstone	us,	56	· · · · · · · · · · · · · · · · · · ·	113.7 Run-   Rec- C1- 2	2.81	
118	8	LTII.	<b>-</b> C0	NTINUE	D ON S	HEET #4			!		239	

\_(

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HEILE Hole No. 77 SHEET Cooper River Rediversion St. Stephen, South Carolina
ON DEPTH LEGEND CLASSIFICATION OF MATERIALS RECOVERY NO Healthern
118 C. Stephen, South Carolina
No CORE BOX OR SAMPLE (Dealing to NO Healthern Control of No Healthern Control of No Healthern Control of No Healthern Control of No Healthern Control of No Healthern Control of No Healthern Control of No Healthern Control of No Healthern Control of No Healthern Control of No Healthern Control of No Healthern Control of No Health Control of OF 4 SHEETS REMARKS
(Drilling time, water low, depth of weathering, etc., if stands, out.) ELEVATION DEPTH LEGEND Pull 10, Continued SM- Sand, Gray, Calcareous Loose Shells BOTTOM OF HOLE 118.7'

							Hole				
DRILLI	ING LO	_	vision South Atlantic	INSTALL		s		SHEET SHEETS			
PROJECT		- 13	JOHER RETAILETE								
Cooper							SHOWN (TEM O	, MSL)			
LUCATION				MSL							
STASY A	AGENCY		5'R	12 MANUFACTURER'S DESIGNATION OF DRILL Failing 3140							
		strict		13. TOT	AL NO OF	OVER-	N Wax 59	UNDISTURBED			
and file num	As show	no-no-no-no-n	78								
NAME OF D						R CORE B					
Getty I				13. ELE			TER 50.5	COMPLETER			
T VERTIC			DEG. FROM VERT.	16. DAT	E HOLE	28	B July 15				
* KII KNESS	OF OVE	RBURDE	N 79.2'	17. ELE	VATION TO	P OF HOL	E 54.31				
DEPTH DRI							FOR BORING				
TOTAL DEF			254.21	19. SIGN		COLE &	C. DAVIS				
·			CLASSIFICATION OF MATERIA	LS	% CORE	BOX OR SAMPLE NO		REMARKS			
EVATION	ь		(Description)		ERY	NO	(Drilling time	, water loss, depth of . etc., if significant			
<del>-</del>	B	c	9		•	· · · ·		9			
	_		OVERBURDEN consisting								
1			clayey silty sands and stratified sands silts					ick object e barrel cong			
			clav.	GILL			1	cuder as ag,			
į			-				piir	led #11 //			
:			FISHTAILED TO 78.2'					114 - 6 - 6			
į			Depth to				ł	lling to a solution. N'ain age			
į			Date Groundwater					e ' 1.00			
į	_				ĺ		cut	tings.			
!			31 July 75 3.5'				į.	ow 78.21			
			3 Aug 75 3.7'		į		i	ed rock and onsolidated			
-	_		4 Aug 75 3.7' 5 Aug 75 3.7'					onsoridated erials w/ serie			
į			6 Aug 75 3.6'					arrel : 4x5;"			
1	_		8 Aug 75 3.8'				4	charge bit and			
!	_						Den	ison Sampler			
	_						Wax	1, wax 2			
1	_						i	icates sect ons			
						1		core present ed			
							1/0				
. 3.00	<u> </u>							, i-2car ison pample			
			SAND dark grey, f, w/s	hell			Pul	· · · · · · · · · · · · · · · · · · ·			
1			frags, limey, trace si		MC			78.21 (3.91.61)			
~ <del>* . *  </del> {	80 =	<del>                                    </del>	SP-SM	1 2		Jar l		3.7 <b>'</b> 3.5'			
			SANDSTONE argillaceous, m-f grained, compact-pa	sh <b>a</b> ly rrlv	95	1	Kec	ر , ر			
			cemented w/limey cement		MC	<b> </b>					
	_		cap w/lenses clay 79.2'	-79.6	15%	Wax					
ı			moderately soft clay s			1	INOTE	:Wax #1.clended			
			w/lenses m=f sand = 79. 79.8' & 81.5' = 81.7'	n · ·	MC 40.2	∃बर 2	1	claseril s es			
			,,,, G G OI,,		LPO.7	iar 3	10 1 (ML)				
								فادس			
			; 					241			
								The second second			

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DRILLING	LOG	(Cont S	heet	ELEVATION TOP OF HO		***		Ho	le No. 7	8
Mosc: Cooper	Rive	r Power	hour.		growth and the	. 14 01	atriot			Suret D
ELEVATION				1.555 (ANOHA)		•	1813		şi ;	, RK1
itteration !	ь	e		· 2.				50.5	orthorra er	
		<u> </u>	•				7 T		Post 1.	
		=		for disable grass.			11.3		T al	
		===	pac	t, i crainer, tion shale,	Lagran 1	ς · · · · · · · · · · · · · · · · · · ·			p Pont L. LaRect La	
!		<del> </del>	well	1 developed.	311 - 11 - 11	17		5.03	1	
	84 -		- & g - d	lauconitic,			. a	1	Pull 3	41 to 36.41
			Cor	. 1,000 P. 1. 2.1.			3		i Run 3.	
			. g.,			175			Sec. 3	
						ŧ				
	86					,	•		1	
,				And the Control of the Control		•				
				15121 1917, 47, 41		*,.	ar î olgav		Pull	
		1-11-1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					и ругай. 1 жыл 3	Alberta March
				•				$r^i$ , .	Reg 3.	
	88		88	3.1° 88.3°		: 100	to an	4		
		<u> </u>					a:: 7			
		1				£1.	9 8		ļ	
-35.7	.90			dE der mev		*	,		Pull '	)  41 to 92,41
			oon	ipact, fissle. Trollay shale	, the at the				Run 3	
		1		tines, slight					Rec ().	
			1.87	v : beledi:	1 -		'In::		1	recovered in ring run
				nh <mark>a</mark> ct 5 94.65. Son limester		A 191	ð			
	9.3	- <u></u>	GIM,	countered, on	• • • • • • •	* p i				
·		<u></u>	Lic.	rrawee y. si			* 4		D 11	•
				ne need of the second	·		:		Pull (	,41 to 66 65
							,		Run 2	.21
	94	1-13-3				N.,	<u>.</u>		Dec i	.5'
-40.3		1					1 Jar 5	3		
			i jirg	os oue Coulos			var.		Pull	7
			i kiro:	, fossilifer ty, moder <b>a</b> t l	and the second of the second		91		,	.6' to m. "
	114		- saur Toods	cy, moderac c	A CONTRACTOR		ात्रहरू <sup>च्या</sup>		Run 3	
	96	-1, I-	_ WCL	n comented to	i يائان لايان	,	10		Rec 3	. 1
				e transfer en en en en en en en en en en en en en		1 : 5			1	
				•					1	
		$\frac{1}{2} \prod_{i=1}^{k} x_i^k$					·	:	!	
1	43						1	r.	•	
		•								
									t t	
										242

		(COIII 3	heet) ELEVATION TOP OF HOLE			Ho	le No. 78
ORC Cool	NAM 102-	ion Dec	INSTALLATION DIA 1 - 1 - 1				SHEET 3
	per KIV	ver Pou	yerhouse Philadel			<del></del>	OF 12 SHEETS
EVATION	DEPTH b	LEGEND	CLASSIFICATION OF MATERIALS (Description) d	RECOV.	SAMPLE NO		REMARKS rilling time, water loss, depth of ceathering, etc., if significants
	100		94.6' - 95.6' hard, dense, well cemented 95.6' - 104.1' moderately hard- moderately soft, honeycombed, very shelly and fossiliferous broken zones	100	†	†~ = ·	Pull 8 FM 97.7' to 100. Run 3.0' Rec 2.5' Loss recovered i
!	-		@ 98.6'=99.2' & 99.7'-100.	7' LP1.2	2	· 	following run
:	102						Pull 9 FM100.7' to 104. Run 4.1' Rec 4.1'
; ; ;			10/ 11/110 211	100	Wax 12	BOX 4	
:	1.04		104.1'-110.2' partly cement coquina shells in a quartz sand-limey matrix, friable	LP1.2	Wax 13		
į	106		. ,	100	Wax 14		Pull 10 FM 104.8' to 107 Run 3.0'
; !					Wax 15	-	Rec 3.0'
	108	王		LP1.1			
:				100	Wax 16	BOX 5	Pull 11 FM 107.8' to 110 Run 2.4' Re~ 3.5'
	110		110.2 <sup>1</sup> 110.9'Moderately hard,	LP1.2			
			honeycombed. 110.9'-112.7' hard, dense,		Wax 17		Pull 12 FM 110.2; to 112.
3,4	112		well cemented.	100	1	вох	Run 2.7' Rec 2.7'
ı	114-		SAND	MC 31.1	Jar 6	6	
	1		Continued on Sheet 4			<b></b> .	
	!						7/LD

KILLING	rog	Cont S	heet) ELEVATI	54.31				Hol	• No. 78
POJECT				<del></del>	INSTALLATION				SHEET 4
Cooper	River	Power	house		Philadelph				
ELEVATION	DEPTH	LEGEND	CLASS	IFICATION OF (Description		RECOV-	BOX OR SAMPLE NO.	BOX "	REMARKS  lling time, water loss depth of athering, etc., if significant;
	ь	c		d		ļ <u> </u>	<u>f</u>	- 7.7.2	D. 11 12
59.7	_		SAND (No buff to		m sub <b>a</b> ngul <b>a</b> n	÷ 96	i I	1	Pull 13 FM 112.9'to 115.
				led quart		MC	Jar 7	: :	Run 2.4' Rec 2.3'
!			shells,	trace-so	me silt	26.3	-= <del>===</del>	i	FM 115.3'to 117.
!	116			SP-SM t	o SM	Mo	U-1	! :	Run 1.7'
						28 5		!	Rec 1.7'
(0.7.	_				ис	2805 100			LAB Classificatio
62.7	~					-27, 3% MC	L		
	_		LIMESTO	NE (NO. 2	)	28.9 MC		вох	Pull 14
	118	111	grev fo	silifero	us, hard &	: 16.50	Wax	6	FM 117.0'to 120 Run 3.1'
	110	4,4,		nented to			18	i	Rec 2.7'
!		<b>T</b>	broken	shelly li	mestone	87	ļ	ļ	
		111		ided with		į	1		LAB Classification
1	-				tz sands,		!	i I	for blended Spl. 117.5' to 119.2'
j	120		sandsto:	ne & clay 1117.2 hr	shale. oken limesto	LP1.2		į	(SM)
ļ	120		117.2'-	117.5'SAN	D f (SP-SM)	25 9	Jar 9		Pull 15
l	_		117.5'-	119.8'Lim	estone, hard-	-			FM120.1' to 122.
ļ					ken - 119.8	'	}		Run 2.8'
	_	┪┸┰┸┤			AND & LIME-			! !	Rec 1.5'
	122			ragments	MESTONE hard	54	}		
	122	111			ELL fragment			i	
		┸┰┸┰	&f-m sa:	nd					
			121.0'-	L21.4' LI	MESTONE		ļ		
i	_	1			SAND f-m				Pull 16
	124		quartz,		MESTONE hard	i	1		FM 122.9' to 126 Run 3.1'
!	124		vuggy	ZI		98			Rec 3.0'
:						J 36			•
i					MD f-m qtz,			20	
	_		c~r sne	ll, silty	(SM)	MC	Jar	BOX 7	
	126		126.0'-	128.51 so	me silt &	22.0	10	, <i>'</i>	
1			clay	(SM-SC)		MC			Pull 17
ļ			•			20.9	Jar 1	I .	FM 126.0' to 128
į							ļ		Run 2.5'
	_					100			Run 2,5'
	128-		NOTE:B	ended Lal	b sample	MC	L		
				ies as S		PL1 <sup>2</sup> 2.	Jar 1	2	
		1,1,	128.5'-1	30.6' LIM	ESTONE hard				Pull 18
į			fossilif		•			вох	FM 128.5' to 131
		T				100	Wax	8	Run 3.0'
1	1 <b>3</b> 0					1	19		Rec 2.9' Recovered loss in next run
			CONT	INCED ON	PAGE 5				next run
i							i I	İ	
		•					1	ĺ	2WL
		•				1	I		<del></del>

KILLING	100	(Cont	Sheet)	ELEVATION TOP OF HOLE 54.3"				Ho	ole No. 78
ROJECT					INSTALLATION				FSHEET 5
Cooper	River	Pow ·	house		Philadelp	<del></del> _			OF 12 SHEETS
ELEVATION	DEPTH	LEGEND		CLASSIFICATION OF (Description)			SAMPLE NO	(D	REMARKS rilling sime, water to a depire to eeathering etc. it significants
<b>4</b>	<u>b</u>	c titi	<del></del>	d		<u>e</u> .	<del> </del>	BOX	, <u> </u>
	-			6'-131.1' SANI ly (SP- 1'-131.5' LIM		MC 8.9%	Jar Jar	1	Pull #18 Continued
			131.	5'-131.8' SANI ained			198	i İ	Pull 19
:	132			8'-138.5' SANI e to some she			9.7%		FM 131.5' to 133.5 Rub 2.0'
			thin 138.	shale layers; 5', few thin l	; 133.0'- lenses &	MC	Jar 14	g g	Rec 2.8'
	134		l <b>a</b> ye	rs cl <b>a</b> y & silt (Sl	t PW/SM&S	d)	Jar 15		Pull 20
				: 134.8'-137.		62 MC 26.7	Jar 1	6	FM 133.5'tol34.8' Run 1.3' Rec 0.8'
				, sand washes trating hard		MC 26.2	Jar 1	7	Pull 21 FM 134.8'to137.0'
	136					27	 		Run 2.2' Rec 0.6'
				:Blended Spl. 1'. LAB Class		MC = 2			FM 137.0' to 138.5 Run 1.5'
83.7	138		138.	(SP) 5'-139.1' SANI limey, honeyo		93 MC	U-2		Rec 1.4'
			139.	1'-I40,2' SANI ly, silty		24.1% 89	Wax		FM 138.5'to141.3' Run 2.8'
	140 		141.	2'-141.0' LIME 0'-142.0' CLAY	Y-SHALE		20		Rec 2.5'
			s <b>a</b> nd	y, well consol	lidated	LP1.0	!		D 11 20
17.9	142	1717	SAND	(NO. 2)	·	<u> </u>			Pull 23 FM 141.3' to 144.8 Run 3.5'
			Comp	act f-vf qtz, trace shells	, silty	77	Wax 21	 	Rec 2.7' NOTE:LAB Classiti-
	144				(SM)	MC 30.9	Jar 18	BOX 9	cation: Jar 18-5M, Jar 19-5M.
	4	<b>‡</b> ‡‡}				LP1.1			v 11 0/
	146		-			21	***************************************		Pull 24 FM 144.0' to 146.7' Run 1.9' Rec 0.4'
	7	ļ	CONT	INUED ON PAGE	6				
	- <del> </del> - <del> </del>								245

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DRILLING	rog	(Cont S	heet)	ELEVATION TOP OF HOLE	•			Hole No.	78
ROJECT					INSTALLATION				SHEET 6
Coop	er Riv	er Row	erhou	AA	Philadelph	ia Dis	trict		OF 12 SHEETS
LEVATION	DEPTH	LECENIO.		CLASSIFICATION OF		% CORE	BOX OR		REMARKS e. water luss, depth of
FEATION	1	LEGEND		( Description	<i>;</i>	ERY	NO.	BOX weathering	e, water luss, depth of , etc., if significant)
	b	С		d		<u> </u>	<u>f</u>		
	=	]	l				] }	1	
	-	7474	1				[ ]		
		7171					1		1 25
	=	<b>† I † I</b>					ļ		146.7' to 150.
	1 =	<b>†</b> I <b>†</b> I	i						4.0'
	148 —	• T • T	Jar	19 fine silty	clayey sand	MC=3	<u> </u>	Rec	3.4'
	=				(SM-SC)	88	nd 19	1 2	CLASSIFICATION
	} =	11717	l						le No.
		III						U-3₩	<b>46</b> .4¹(-98.5) s
	=	<b>T + T +</b>	1					U-5-	<b>9</b> 8.5 ' (-100.3) s
	150	7171		•			] }	U-3 <del>,</del>	98.0'(-98.5) א
	_	1 1 1 1					Jer 20		
	-	<b>       </b>				MC=			
	_	<b> </b>				MC 3	3.1	-	150 714-150 01
		1111				29.7	J I		150.7'to152.8'
	=	1111				43./	″ับ~3		2.1'
	152	1414	Bot	tom of U-3; f	sandy, silt	100		Rec	2.1
	=	TATA	ĺ	•	(ML)		<b> </b>	i i	
	-	1111			• •		Jar U-	3	
	} <u> </u>	1111	ł						
	=	† I † I							52.8'to 154.6
	=	i∳T∳T				MC	U-4	Run	
	154 —		Cem	ented zone bo	ttom U-4	28·4	1 1	Rec	1,6'
	=	11414					-		
	=	11414				<b></b>	Jar U-		
	_	1414	1			MC	} }		4.6' to 156.7'
		1111	ŀ			28.6%	บ-5	Run	
		†I†I				76	כייט	Rec	1.6'
	156	I   I	ł						
	=	<b>         </b>	ŀ				Tem 11-	E .	
-102.7	-	1111	ļ				Jar U-	1	<b>.</b>
	=		G YZA	T. F. (NO. 9.)		MC	j j		<b>56.7'</b> to 159.2'
	=			LE (NO.2) gre		132.3	บ-6	Run	
	158-			soft f sandy		100		Rec	2.5
	-		"	le interbedde dstone, argil					
	=			11y 11mestone			L	1	
			g f 1	ts & f silty	guartz sando		Jar U-6		
	=		157	.0'-162.5' so	ft-mod hard.		U-0		100 01
	- =		san	dv (near 50%)	w/silt &	MC'			156.7' to 161.
	160		si1	ty sand parti	ngs, fissili	Ly 40.	<sup>μ</sup> υ <b>-7</b>		1.91
	=	<i>-</i>	abs	ant or poorly	developed.	100	} ` }	Kec	1.9'
	=	- <u></u> -	1	- •	-		Jar		
	-	<del></del>	1			MC	U-7 VIX	5 A	ug 75
107.7	162_					43.6%	- <del></del> -		3,7'
-01.61	-		CON	TINUED ON PAC	E 9				
	-	1	501	LINUID ON INC	· <b>-</b>		i i		
	-	Ì							
	_	}							- 11
	=	;							246
		1	1			1	.		~ / ~

CILLING	roe (	Cont 5				<u>Ho</u>	le No. 78
Coo	no= 04:	von De	werhouse Philadelph	da Ddad			SHEET 7
	ber vr	AGT LO			BOX OR		REMARKS
EVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	RECOV-	SAMPLE		rilling time, water loss, depth of
	ь	c	d	ERY	NO	BOX "	veathering, etc. if significant)
			160 FL 162 CL CANDERONE	100	<u> </u>	- 5011	DIET 26
	· -		162.5' - 163.6' SANDSTONE	100			PULL 26
	1		grey, f, hard, limey	1	Wax		FM 161.1'to163.7'
	-				21B		Run 2.6
	-		163.6'-163.7' sand f SP-SM	LP1.3	7 77		Rec 2.6
	164		103,0 103,7 54 1 51 511		Jar 21		
			163.7'- 174.5' SHALE	†			Pu11 27
	: 7		dark grey, limey, compact,	i			FM 163.7' to 166.
			some silt & sand partings,	100		вох	Run 3.0'
	-	]	moderately soft, easily	İ	1	10	
	. 7		scratched by fingernail,		]	-	
			fissility not well developed	Ú			LAB CLASSIFICATION
	166		12002120y most worst movement	MC=27	4		Wax 24 SM W/CH
	7			L₽3.0	Jar 2	2	Pockets
	-			LE 380	†		Wax 25 ML
	:				Wex		Pull 28
	` 7				23		FM 166.7' to 170.1
	. 그						Run 3.4!
	168		•				Rec 2.5
	7			74	MC-28	. 1	:
				MC			ı
				29.0%			
				!	24		
			Planded sample from 160 21	29.0% LPO.8	Wax		
•	170		Blended sample from 169.3'	LP0.8	25	BOX	
			LAB Classifies as (\$M)			11	
							Pu11 29
					} )		FM 170.1'to173.1'
				100	İ	1	Run 3.0'
			1	MC	Jer24		Rec 3.0'
	172		172.3' - 174.5'near 50% sand	27.8	MELET	i	
i				2,,,0	! !	}	
					1	1	
				LP1.2	.		
	; <del>-</del> 1			1		i	Pull 30
				1	1		FM 173.1' to 176.1
	174-			1			Run 3.0'
				100	Jar 25		Rec 3.0'
	⋾		174.5'-177.3' LIMESTONE grey,	MC	Wax		NCC 3.0
	<u> </u>	┯┸┯┸┥	hard-mod soft, fossiliferous,	26.5	26	ľ	
	7		dense, argillaceous, shelly.	20.5			
	· = =	TT		1			
	176	$\perp$		LPO.6	<u>.                                    </u>	1	
	7	┸┯┸┰┤				ſ	Pull 31
		T*T*		t.		BOX	FM 176.1'to179.0'
	[			! .		12	
	7	<u></u>	177 Of 100 Of COAT 7 1 1	MC	Jar 2	·	Run 2.9'
			177.3'-186.3' SHALE dark grey	31.1			Rec 2.91
	178	_=_	lenses & partings f-vf sand,		Wax27		
	- 1	1					
	<del>-</del>		Continued on page 8				
	1						
	<b>→</b>						247

Cooper			heet) 54.31				le No. 78	
	River	Power	nouse Philade	lphia Dis	trict			SHEET B
			CLASSIFICATION OF MATERIALS	% CORE	BOX OR		REMA	
LEVATION	DEPTH	LEGEND	( Description )	RECOV. ERY	SAMPLE NO.		rilling time, wa veathering, etc.,	ster loss, depth of of significant)
	ь	c	d	•	f f	BOX		<u> </u>
	!		(Continued from page 7) compact-mod hard, slightly	MC	<u> </u>	 	D.,1	1 #31 Con't
	; =		limey & glauconitic, fissi	11tv29115	Jar27		""	1 "51 00 0
	_		not well developed	<u> </u>			2 11 22	
	_				ĺ	ĺ	Pull 32	0'to182.0'
	180 —				! [	i I	Run 3.0	
					İ		Rec 3.0	
	-			100	ĺ		}	
					Wax	ĺ		
	-				28		,	
	-			LP3.0			1	
	182			100	Ì	,	Pull 33	<del></del>
	. <u> </u>			LPO.8	Wax		FM182.0	to182.81
	] =				29	i	Run 0.8'	Rec 0.8'
	-		1	100 MC=19 2% LPO.9	2828			to183.71
	-		183.7'-186.0' mod hard	LPU.9	2828	1	Run 0,9'	Rec 0.9'
	184				Wax		Pull 35	,
•	=			100	30	BOX		' to 187.1'
	1 =				Wax	13	Run 3.4'	
				}	31		Rec 3.4'	
	-							
-131.7	186				}	•		
131.7	-		186.3'-189.5' SAND grey,	MC	•	İ		
	_		compact, vf, silty, some	25.3	J <b>ar</b> 29	[		
	-		clay shale, crumbles easil	y MG	,			
			(SM)	25.3	Jer30		Pull 36	
	_			İ	<b></b>		FM 187. Run 2.7	1'to189.8'
	188			74	Wax	вох	Rec 2.0	
	-			/4	32	13	Nec 2.0	
ļ			MC= 2	6.4%	Jar 31			
			MC= 2	1	Jar 32			
'	_		189.5'-191.0' LIMESTONE gr	ey.				
	190	<del>, , , , , , , , , , , , , , , , , , , </del>	hard, dense shelly, sandy		Wax	}	Pull 37	•
,	] -				33		FM189.8	'to192.9'
	! =	<del>}</del> ┸┲┺┰┤	191.0'to191.9' SILT f-sdy,	100			Run 3.1	
			compact, some shell	MC	Wex	]	Rec 3.1	."
	=		101 01-102 AT TEMPORONE	4 04. 00/	34	}		
ļ	192		compact, argillaceous, she	11y		BOX		
	· _		weakly cemented	36.2	AGE 33	24		
	! ==			LP1.5			L	
i					1		Pull 38	
	<del>-</del>	<u> </u>	193.4'-195.9' CLAY SHALE		Jar 34		FM192.9	to196.0
	194		mod soft, f. sandy, trace	μC			Run 3.1'	Rec 3.0'
	[		CONTINUED ON PAGE 4	29.4				
	=		CONTINUED ON LEWIS Z			İ		
,		1			 			
	=	1			Ì			2110
	=	1					(	248

	LOG	(CONT 3	heet) ELEVATION TOP OF HOLE 53.4				Hol	e No. /8	
ect ooper	River	Powern	ouse P	атюн h <b>ilad</b> e1pl	h <b>ia</b> Di	strict	Ė	SHEET 9 OF 12 SHEETS	
EVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIA (Description)	us .	% CORE RECOV- ERY	BOX OR SAMPLE NO	(Dri	REMARKS illing time, water loss, depth of eathering, etc. if significant)	
	b -		(Continued from page shell fragments, slig glauconitic		MC 30.1% <b>97</b>	Wax 35		Continued from Page 8	
	196		195.9' - 197.2' LIMES hard, dense, silty		MC 28.8 P <b>1.5</b>	Jar35	•	Pm11 39	
			197.2'-199.7' CLAY SH grades from mod hard soft, f sandy, friabl	to mod	MC	₩ <b>e</b> x 36	;	FM196.0' to 200. Run 4.0' Rec 3.8'	0 <b>'</b>
19	198		soit, I samy, Illani		31.2 <b>95</b>	₩ <b>a</b> ж 37			
	200		199.7'-200.8' LIMESTON		мс 221.35	Jar 37	вох 15		
	! -		200.8'-206.3' STLT gre	y, com+	63 LP <b>0.</b> 4		<u>+</u> :	Pull 40 FM200.07to <sub>R</sub> 200.08	5' <sub>-</sub>
	202		pact, f sandy, (near 5 slightly limey, few fo laminated, occasional layers clay. (ML)	ssils, thin	87 MC 0.4%	Wax 40		Pull 41 FM 200.8' to 263 Run 3.0' Rec 2.6' 200.8' Twisted	8.8
	204				LP1.3	U <b>-8</b>	<u> </u>	rod off in hole FM 203.8'to205.6 Run 1.8' Rec 1.8'	, 1
	206 —		206.3' - 207.1' LIMEST	ONE	4C 30.0	Jar U-8 Jar		Pull 42 FM 205.6to206.3' Run 0.7' Rec 5.	61
			hard f sandy, dense  207.1' - 209.3' SILT f slightly glauconitic	-	87 100	37 <sup>D</sup>		Pull 43 FM 206.3' to 209 Run 3.1'	
	208		orrenta Prencontrate		: !	Wax	BOX 16	Rec 3.1'	
55.7	210		209.3' - 215.8' SAND f	<u>با</u> م	P1.8	41 7 38 - Jar 39	MC=3	0.3%	
			CONTINUED ON PAGE 10					63	
				!		; ;		249	ĵ

ation a	River DEPTH b	Powerh LEGEND	CLASSIFICATION OF (Description) d (Continued from p	INSTALLATION Philadelph MATERIALS	% CORE	trict BOX OR SAMPLE		REMARK	HEET 10 #12 SHEETS S
ation a	DEPTH b	LEGEND	CLASSIFICATION OF (Description) d (Continued from p	MATERIALS	% CORE	BOX OR	4.7	REMARK	
2	b	C	(Description d (Continued from p		RECOV.	SAME			
	-		(Continued from p		ERY	NO.	ı u	illing time, water eathering, etc., if	luss, depth of
					<u>e</u>	f	BOX		
			12 UU 31 - 21E 51 CY				вох	Pu11 44	
		1	209.3' - 215.8' SA quartz, silty, sli					FM 209-4	to 212.5'
	=		some interfingerin	g clay	87			Run 3.1'	<b>_</b> _
			shale SM	- •	MC	Jar 40		Rec.	
	212				33.0%				
					MC			Pull 45	<u> </u>
				•	320d	Jar 4			to 215.8'
j	=				100			Run 3.3'	
	214							Rec	SIFICATION
						Wax 42		WAX 42	CL
	=		1			74	nov	LIAV La	ML
						ļ	BOX 17	JAR 40	ML
	=				LPO.6		1		
	216	<u> </u>	015 01 001 (1	CHATE	+			Pull 46	
			215.8' - 221.6' dark grey, f-sand	SHALE					to 218.81
	=		f-vf sand, consis	tency stiff	MC= 3	<sup>2</sup> 3 <b>2</b> 243		Run 3.0'	
			sandy clayey silt		67	Jar43		Rec	
	=		not well develope						
	218				-			!	
	410							1	
								9 Aug 75	
						บ-9		WL 4.3	
	320								to 221.0
	220				100			Run 2.21	1
	_	===			MC	Jar	ł	Rec	
					MC 28-3	U-9			
					30 3°	Wax 43		Pull 47	
	222		222.1' - 226.5' S		32.2%			FM 221.0	to 224.0
	222		f-vf quartz, silt	y, mompact,	MC	tom 1.1.	-	Rec	
			friable, 223.5'-2	26.8' vy	31.2	Jar 44			
			compact	(SM)	93				
İ	1				}			1	
	224				LPO.4	Wax			
						44		Pu11 48	
Ì	=								' to 227.3
ŀ					100		вох	Run 3.3'	. • •
						Wax	18	Rec	
	<b>,,,</b>					45	10		
	226	*******						<u> </u>	
1	7		CONTINUED ON PA	AGE 11					
į									
									<b>A</b>
	=				1				260

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ooper				54.3"	· -			-	1
JOPEL	P4 17 AW	Downson's	01186		rict	SHEET II			
	VIAGE	rowern			delphia D				OF 12 SHEETS
EVATION	DEPTH	LEGEND	CLASSIFI	CATION OF MATERIALS	% CO		BOX OR	iDi	REMARKS rilling time water loss depth of
-				(Description)	ER		NO	BOX "	ceathering etc. if significants
<b>-</b>	b	C		<u>d</u>	<del>-</del>		<del>, _ <u>†</u></del>	BOY	† - <u>*</u>
	-		SAND, Grey		мс				1
			226.5 -229	SHALE	51.	6	Jar 45	}	Pull #48 Con't
			grey, com	pact, sandy fr	iable LP1	4			
				y f-vf SP-SM,			Wax	BOX	D.11 (0
	i –			layers to 0.2			46		Pull 49
	228			not well deve				18	FM 227.3' to 230.
	1		•			^			Run 3.2
	-				10	U			Rec 3.2'
					1		:		
	_			_	140				
	_	1	229.5' - 2	231.1' SAND gr	ey, MC	^	Ter 1.4		
	230		f-vf qtz,	silty, glauco	"LL CLC S	U	Jar 46	•	t
		!=_=_=	scft, 230.	.9 <b>!-231.1'</b> (S	M)				!
	1 .	<u> </u>	•	`					<u> </u>
									Pull 50
	: 3	7-7-	221 11	232.3 LIMESTO	INTE		l		FM 230.5' to 234.
		++++				8	Wax47	BOX	Run 4.01
	222			se, fossilifer	ous,		Wax		Rec 3.1'
	232	<del>├┰┹</del> ┱┸┤	contact 20	J	:		48	13	Vec 3.1
=0 -	-		000 0	NA F1 345	MC				İ
78.0		<b>!</b>		234.5' SAND gr		4	Jar 4	,	
	'	<u> </u>	f-vf qtz,	some silt, we	t, MC				1
	1	<b>[</b>	quick 232	.4' - 232.7'	21.	5 -	Jar 48	•	
		<b>!</b>			i	-			
79.7	234	<b>{</b>							1
		<b>[</b>			LPO.	9			
			TAMPOTONE	(No. 3)	mato1.		Wax		Pu11 51
			LIMESIUNE	(No. 3), mode	Tereta		49		FM 234.5' to 237.
		┸┰┸┰┤		siliferous, nu			Wax		1
	i -			hells, honeyco			50		Run 3.3'
	236			se, hard layer					Rec 2.6'
	!		234.5 -23.	5.0'. 239.2'-2	39.51 79		Wax 51		
				244.5' rough h		-			
		<del>▎</del> <del>▎</del> ┃		actures spaced	0.3'+				į
		<del>▎</del> <del>┃</del>	0.6'				Wex		
	1				LPO	.7	22		!
	238					{	Wax		
					į		53		Pu11 52
	,	1							FM 237.8' to 241.
					1				Run 313'
					100	ָ כ	Wax		Rec 3.3'
		1,1,			ļ		54		
	240	┝┰┸┰╇╌			•				i
	24U	111			•		T DO C		
		<del>                                     </del>					LPO.6		
		111				į	,	DOW	!
					-		WAX		1
	1				10	, n	55	20	EMPU11 53 to 244 5
		1 1 1			10	U :			FM <sup>241</sup> .17 to 244.5 Run 3.4 Rec 3.4
	242	<del></del>							
	-4		CONTINUE	O ON PAGE 12					
	4	1							
	•	i i							251

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drilling	LOG	(Cont S	heet) ELEVATION TOP OF HOLE				Но	ole No. <sup>78</sup>	
NO JECT			ins	STALLATION		-			SHEET 12
Comper	River	Powerho	ouse	Philadelph			,		OF 12 SHEETS
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MA (Description)	TERIALS	% CORE RECOV ERY	BOX OR SAMPLE NO		REMAR rilling time wate weathering, etc. i	r loss depth of
	b	c	d		•	<u>f</u>	BOX	<u>g</u>	
			LIMESTONE (No. 3) Continued from pa		:	-		Pull #53	Con't
-190.2	244				LP1.0	W <b>A</b> X 56			
	<u>-</u>		SAND (No. 3) grey, subangular quartz, some silt, trace mi	compact,		J <b>ar4</b> 9	ВОХ 21	Run 3.3'	to 247.8
	246				88	Jar 50	  -  -	Rec 2.9'	
	248				LPO.6	· · !		Pull 55	
					100	Jar 51 WAX 57			to 251.0
	250					Jar 52			
-197.2	252		SANDSTONE f-vf, hero	i, limey	100	WAX		Pull 56 FM 251.0 Run 0.9	to 251.9 Rec 0.9
-198.2						58 WAX 59		Pull 57 FM 251.9 Run 2.6 <sup>1</sup> Rec 2.6 <sup>1</sup>	
200,2	254		BOTTOM OF HOLE @ 25	54.5		. <b>A</b> R			
						<u> </u> 			
		† ;							
	- 	- - - - - - -			1		· · ·		
	· · · · · · · · · · · · · · · · · · ·			<u>.</u>	! !	i	i i	-	252

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## COOPER RIVER REDIVERSION PROJECT POWERHOUSE FOUNDATION ANALYSIS

### SECTION 2

CHARLESTON DISTRICT CORE BORING FIELD LOGS

U.S. ARMY ENGINEERING DISTRICT, SAVANNAH
CORPS OF ENGINEERS
SAVANNAH, GEORGIA
FEBRUARY 1976

				Hole Ho	
DRILLING LOG	TINSTAL				SHEE
PROJECT			E 05 10 1		THE HEETS
				รมรัพน์ <i>กากสาราส</i>	<u>4×1.</u> 1 Bb1
Service Continues of Service	· · ·   		<u>.</u>	E., . :	_
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90. E. NO. (As a however on drusting title and file tion her. [11.15]	8118	DEN SAMP	LES Y 4 K E !		
NAME OF DRILLER	ļ		B 3RC ) RE		
O RECTION OF HOLE	18 ELE	VATION G	ROUNE WA		COMP. F.Cs.
CORRECTION OF HILE  A VEHICLE OF CHARLESTER CORRECT CORRESPONDED TO THE CORRESPONDED CORRESPONDE	16 DA	E HOLE			Sker, F. E.
	EXE	WATEON I			
DEPTH DRIVE FOUND BOOK 0	TOT BIP	AL CORE	RECOVERN	FOR BORING	
a ja ja mana mana mana mana mana mana ma		ATURE O	FINSPECTO	OF.	
TOTAL DEPTH OF HOLE 10.0"		- CORE	HOX OR	AV. Lin	ARKS
LEVATION DEPTH LEGEND CLASSIFICATION OF MA (Description)	TERIALS	A E COV-	SAMPLE	Drilling time. w	eter loss, depth of
a			· · ·		
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coarse w/small roc	RS V trag	4	*		13
Course to med. W/s					
rocks and gravel -	5M		2		31
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4 [] * [] Cany Leases 1 Cont		]	3		5.61
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The state of the s	•	i	:		

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DRILLING LOG South at let it 10 th			DIVISION	THISTALL TION
PROJECT River Rediversion  Looper River Rediversion  Location (Coordinates or Statem)  Size 790 P2 A2a 11  Continue Gaeter  Mobile District  And of District  And of District  And of District  Thickness of Overburden  DEPTH CHICLER NOCE  LEVATION DEPTH LEGEID  3 3 4 4 5 5 6 5 5 5 5 5 5 6 5 6 5 6 5 7 6 5 6 5				
DORATION (Coordinates or Station)  27.9 JUNE P. 10. F. 10.  DRILLING AGENCY  MOSILO DISERTIC  MOSILO DISERTIC  MOSILO DISERTIC  MOSILO DISERTIC  MARIE P. DRILLER  Particul  DIRECTION OF HOLE  THICKNESS OF OVERBURDEN  DEPTH STILLED INTO ROCK  LEVATION DEPTH (CESEUD)  1.3.11 DAIL	PROJECT			11 3 74 447 71
PRILLING AGENCY  MOSTILO DISTRICT  HOLE NO (As shown on diswing fills and fill number)  NAME OF DRILLER PARTICUL  DIRECTION OF HOLE  Y-EH-CAL INCLINE  THICKNESS OF OVERBURDEN  OFF-H-SPILLED INTO ROCK  TOTAL DEPTH OF HOLE  LEVATION OEPTH LEGE ID  3 5	Coope LOCATION	er River R	ediversion	The section of the section of
HOLE NO (As above on drawit 4 little and lite number)  NAME OF DRILLER PARTICIN DIRECTION OF HOLE  VEH. CAL. INCCINEC  THICKNESS OF OVERBURDEN DEPTH OFFILLED INTO ROCK  TOTAL DEPTH CEGE ID  S  13.11  13.11  13.11  148.0  20.07				John Baylow Comment
NAME OF DRILLER  PATION DIRECTION OF HOLE  X VEH. CAL. TINCCHIEL  THICKNESS OF OVERBURDEN DEPTH SPILLED INTO ROCK  TOTAL DEPTH OF HOLE  LEVATION DEPTH LEGE ID  55  13.11 SLAT  148.9 20.07				and the second s
NAME OF DRILLER  PATION DIRECTION OF HOLE  X VEH. CAL. TINCCHIEL  THICKNESS OF OVERBURDEN DEPTH SPILLED INTO ROCK  TOTAL DEPTH OF HOLE  LEVATION DEPTH LEGE ID  55  13.11 SLAT  148.9 20.07	4 HOLENO	(As shown on di	rawing into	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Partien  Direction of House  Winchies of Overburden  DEPTH OPILLED INTO ROCK  TOTAL DEPTH OF HOUSE  LEVATION DEPTH (LEGE ID)  DS. 0 5.00 5.00 70 71 71 72 72 74 74 74 75 75 75 75 75 75 75 75 75 75 75 75 75	and the nu	mb et/	, =	\$1.50 Sec. 5
THICKNESS OF OVERBURDEN  DEPTH OPILLED INTO ROOK  TOTAL DEPTH OF HOLF  LEVATION DEPTH LEGEND  3				
THICKNESS OF OVERBURDEN  DEPTH OPPLICED INTO ROOK  TOTAL DEPTH OF HOLE  LEVATION DEPTH CESTERD  100.01	6 DIRECTIO	N OF HOLE		16 011F HOLD
THICKNESS OF DVERBURGEN  DEPTH SPILLED INTO ROCK  TOTAL DEPTH OF HOLE  LEVATION DEPTH LEGE ID  D3.0 5.0 10.0	X VERT		NEC DEG FORK VENT	* ·
DEPTH SPILLED INTO ROCK  TOTAL DEPTH SPECIAL  BUILDING BERTH SPECIAL  BUILDING	7 THICKNES	S OF OVERBUR	ROEN	
TOTAL DEPTH CEGE ID  STATE OF THE CEGE ID  S	8 DEPTH OF	HELED INTO R	onk ,	THE THE ALL THE STATE OF
53.9 5.0 C Tive; reduction of the state of t				
53.7 10.0	ELEVATION	DEPTH (LEGE	(4p) 1750 (1 24 / 1 3 3 4	· .
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53.6 <u>23.02</u>	,	7-1		
A3.6 (23.02)	i			į
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	10 TO 1			
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			<u> </u>	
	18,01	-64. 도급	1 :	
<b>.</b>	•	🛊 : 1 :	l .	

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DRILLING	106	(Cont	Sheet) ELEVATION TOP OF HO	1-5			Hole No		-
				PaSTA CATE 3/4					
! !		<u> </u>	keliversion		Level 9.	12 14.		jed jedani	- 4
FLEXATION -	Obsta	LEGEND	. i carp.		REC OV	BUX OR SAMPLE NO	Elektrick state seathers	EMARKS  THE HATTER HAY TO SEE	
	t t	1111			. "			¥	
<u> </u>						:		<b>1.</b>	
<b>5</b> [			:						٠-
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i i						_			
 			Brown			1			į
	-		1			1			!
			Med to fine sand	- Grav		_			
8.7 .	. <u>-9.3</u>					X			
1			Very dense - Lt	1.1 2 T					
; ;			I.						•
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	<u> </u>	1-1-1-1	<del> </del>			•			
		•	Bottom of hole						
			43.01						,
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Hole No. SHEET 1 DIVISION DRILLING LOG Charleston district South Atlantic PROJECT Cooper River Rediversion
LOCATION (Coordinates or Station) N 580 680 E2 325 190 3 DRILLING AGENCY MAL MANUFACTURED'S PERSON TO A PERSON DE SELE Falling 31 c Mobile District

4. HOLE NO (As shown on drawing title and file number)

5. NAME OF DRILLER HE TOTAL NO. OF JUNE MORREN SAMORES THEFT 14 TOTAL NUMBER CORE BOX Pardet th Elevation among manager 16 DATE HOLE 6 DIRECTION OF HOLE EN CHORENTE 7 THICKNESS OF OVERBURDEN 18 TOTAL CORE RECG. EPY FOR IN HIM. B. DEPTH DRILLED INTO ROCK 20.0 9. TOTAL DEPTH OF HOLE HECK HECK ELEVATION DEPTH LEGEND CLASSIFY ATION OF W. Conservation of b. c. d. d.  $.58.7_{-}$ FIFT SM Str Am SC-Colors are intermixed not layered-all material. is clavey sand Water table (4.50e 10.5) Colors are intermited but not layered Sm-water table 9 9.0 (6-9-75) coarse to med sand - Brown 43.7 [15.0□ 3 Į () 38.7 20.0 [ Med. to line sand with gray 1: clay pockets-Brown With small gray pockets soil colors informised but not Taxorol Med. to tipe case. Attend 33.7 28.7 30.0 - 1111 Constitution of the second 236

RILLING	LOG	(Co	tnc	Shee	t) ELEVATION TOP OF HOL	E				Hole No. TT-1R	
ROJE . T						INSTALLATION				SHEET 2	
Cooper.	River	Re	ىنە	wrsi		Charlest			c t	OF 2 SHEETS  REMARKS	_
ELEVATION	DEPTH	LE	GEN	D	CLASSIFICATION OF (Description		% CORE RECOV- ERY	SAA	OR APLE IO	(Drilling time, uniter loss depth of neuthering, etc., if significant)	
.1	<u>b</u>	+	Ť	1 Mari	d		e		Í Γ	Blows/FT	
		11	$\prod$	cla	d. to fine sand ay pockets (mon	i w/gray te sandy)			6		ı
		11	++				ļ	1	<b>-</b>		=
		: :	: :	: SP	-SM-more coarse	2		1		16	
		<b>ქ:</b> ქ:		Red	l Brown					18	
23.7	35.0 -	: :		:				1	7	: <u></u>	_
		1:1:		:						_28	
			$\cdot  \cdot $	.							
	:	<b>∃:</b> †;	.hl	:				•	,		_
	-			Sm-	-coarse has a f	few layers		7		_20	
1h./	200	11		of	dark gray ch r	anges @ 12"		1	8	58	
444	Fe Madd	11	Ш	to	녕" thick. Top	of rock 40.5	<u>'</u>		<b>!</b>	76	
	!	$\Box$	<del>_</del>	井 Lir	nestone @ 18" t	hick-small		-		Pull -1	
			1		layers @ 3" th			į.		40.5 - 45.5	
	i	$\vdash$	1_		ile layers-sand		:	1		Run 5.0	
		-	1	Цdk	gray in color.	•	i			Rec 2.6	
13.7	<u>#5.0</u>	+	T	I						C/I. 2.4	
		11	11	T CM	 -silty sand w/I	Imagtana				Pull - 2	
		1.	. [ .]	1 3.4	fragments (ran		· }			45.5 - 50.5	
		1			small rocks to					Run 5.0	
				.]]	layers)		1	1	1	Rec 5.0	
8.7	<u> 50.0</u>		11	11			1	Ca	re	C/L 0.0	
		1		J Gi	 lty sand - 1 pi	laco candetor		٦.	lox		_
	-	-			thick SM co			1	1 1	Pull - 3	
					2 0112011 011 01				•	50.5 - 55.5	
		$\{ \}$							1	Run 5.0 Rec 4.7	
3.7	55.0	-					ļ			0/L 0.3	
	12.0			1	<del></del>					0.2 0.3	
			11	Sil	ty sand mixed-	-color	ļ			Pull - 4	
		11	H	Dot	tom 6" dk gray	/ CL				55.5 - 60.5	
			$\ \cdot\ $					'		Run 5.0	
- } . }	0.0a	$\mathbf{H}$								Rec 4.7	
	Ed.3	-					]			C/1. 0.3	
	-	1		Bot	tom of hole						
	i	1			60.5'		<u> </u>	1		i 	
		1									
	į	1					!			1	
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		ł								257	
		1 .						<u> </u>			

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							Hole No.	11-20-1
DRILL	ING LO	~   `	VISION	Char	eston	Dietri	ct	OF 2 SHEETS
PROJECT			South Atlantic	10. SIZE	AND TYP	E OF BIT	1 3/8" ID Spli	tspour & 4x5
Cooper				11. DAT	JM FOR E	LEVATION	SHOWN (TEM or MSL)	Core Bbl
				12. MAN	FACTURE	MS ER'S DESI	L GNATION OF DRILL	
N579.87			<del></del>	1		ailing	314	
Mobile HOLE NO	(As show		ing title:	13. TOT	AL NO. OF	OVER-	DISTURBED	UNDISTURBED
and file num	mb er)		IT-2B-1		AL NUMBE		_;	<u> </u>
Parden	DRILLER				ATION G			0
UNECTION	N OF HOL	E		16. DAT		STA		MPLETED
XVERTIC	AL!	NCLINED	DEG. FROM VERT,			<u> </u>	2 Oct :	
THICKNES	S OF OVE	RBURDE			VATION TO			
DEPTH DR	ILLED IN	TO ROCK	10.0		ATURE OF		Y FOR BORING	7,
TOTAL DE	PTH OF	OLE	56.5	<u> </u>		son		
LEVATION	DEPTH	LEGEND c	CLASSIFICATION OF MATERIA (Description)	LS	% CORE RECOV- ERY	BOX OR SAMPLE NO.	REMAR (Drilling time, water weathering, etc.,	er loss, depth of
					<u> </u>	<u> </u>	<b>_</b>	
								Blows/Ft
54.8	0.0		Top of Hole		<u> </u>		Water Table G Ground Leve	<u> </u>
;			SM - Tan to Black Highly Organit		MC 27.2%	1		6
		_	CI T Comm			+ + -		<u>13</u>
i	$\exists$		CL - Tan to Gray			2		12
49.8	5.0		Mixed Colors			] 3		
					MC	4		11
		7	SM - Black		20.3%	16		
!	=		SM - Black			7	LAB CLASSIFIC	CATION 15
44.8	10.0		Gray to white			8	ELEV.	CLASS
]	-					. 9	48.8 - 46.3	ML-CL 21
İ	$\exists$		Green, very fine sa	nd			51.8 - 50.3 46.3 - 44.3	CH 15
!						10	42.8 - 39.8	sc <sub>20</sub>
1	=======================================					[11	<b>\$</b> 0.3 - 27.8	sc
<b>3</b> 9.8	15.0					112	21.2 - 18.8 52.8 - 48.8	SC <u>21</u>
	=					113	72.6 - 46.6	Сн 18
		!				14		13
		1				115		
37.0	, Z					16		12
34.8	20.0	- !				17		,
		!	Gray to Black			18		- 4
		1	W/Clay Bi	naer		19		. 5
i i			very rane band			[		2
29.8	25.0					20		
±. • •					MC	1		2
:					42.7%	21		0
!			Gray - Silt W/Shale			122		
	_	1	Fragm			1		-1-
	$\neg$	1				123		10
24.8	$30.0 \pm$					1 123		
24.8	30. <u>0</u> =	1.1.	Continue Pg. 2			1 125		2

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KILLING	rog (	Cont :	Sheet) ELEVATION TOP OF HOLE 54.8			Hole No.	IT-2B-1
O)ECI			MOTALIATON				SHEET 2
Cooper	River	Rediv	version Charlesto			,	OF 2 SHEETS
LEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	PECOV ERY	SAMPLE NO	Drilling time.	MARKS water loss, depth of tc. if significant;
	<u> </u>	- T	i d	٠ •	1	-	<u>R</u>
	1 =		SM - Gray		24		3
	-		Silty Sand		123	•	5
					. 26		_
19.8	35 0 -		Sand w/Shale Fragments	MC	#		1
±3.0	33.0		1	78.6%	\$27	-	1
			I		. 🕻 28		2
	1 1	• • •	SP-SM - w/Decomp. Limestone		•	•	
	!!	· i	& Marble Gray		:: 138		_21
14.8	40.0				<b>1</b> 31		114
					•		114
		<b>-</b>	Refusal @ 41.5 Top of Rock		· 1 <sup>32</sup>		100
			i			Pull - 1	
	; :		T.			41.5 - 51.5	
9.8	45.0		! !		Core	Run 10.0	
			No Recovery		Boy	Rec 0.0  C/L 10.0	
	! -		i		_ 1	0,1 10.0	
			1			1	
, 0	[ -					!	
4.8	50.0		* * * * * * * * * * * * * * * * * * *				
				•		ļ <del></del>	
	į <u>-</u>		SM - Gray, Cemented Sand		. 1		25
					33	!	
	-				·	1	100
			w/Very Fine Sand			!	90
-1.7	.56.5		proper Paris in the second of the second	- 1	i 🔻	<u> </u>	75
	<u> </u>		Bottom of Hole 56.	<b>)</b> '			
	, =			·		1	
			Note: From 41.5 to 52. obtained. Soil was core				
	:		from 41.5 to 51.5. Went				
			at 51.5. From 51.5 to				
			sank under weight of the				
			layer was hit from 52.5 fishtailed to 55.0' and				
			continued to 56.5 (Botte				
	<u> </u>						
					1	i :	
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		l I				•	
	1.						
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	1						<b>a</b>
	: 1						260

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Hole No. IT-2D INSTALLATION SHEET 1 DRILLING LOG Charleston District South Atlanti 10. SIZE AND TYPE OF BIT 1 3/8"ID Splitspoon & 4x5" Cooper River Rediversion Core bbl LOCATION (Coordinates or Station) MSI MANUFACTURER'S DESIGNATION OF DRILL N579 380 E2 324,710 DRILLING AGENCY Failing 314
12 TOTAL NO. OF OVER. CUSTURBED Mobile District 4. HOLE NO. (As shown on drawing title and file number) 14. TOTAL NUMBER CORE BOXES 1 S. NAME OF DRILLER 52.01 15 ELEVATION GROUND WATER Parden COMPLETED DIRECTION OF HOLE IS DATE HOLE 20 Jun 75 TY VERTICAL INCLINED 17 ELEVATION TOP OF HOLE 59.0 THICKNESS OF OVERBURDEN 18 TOTAL CORE RECOVERY FOR BORING 42.0 DEPTH DRILLED INTO ROCK .5., 0 A HATHER OF HISPECTOR . TOTAL DEPTH OF HOLE 29,01 G. Daviş # CORE BOX OR RECOVE SAMPLE HIS REMARKS CLASSIFICATION OF A (Drilling time, water loss, depth of weathering, etc., if significant) ELEVATION DEPTH LEGEND Blows Ft 0.0 -Top of Hole 59.0 SC - Clayey Fine Sand -Colors Mixed but not layered 4 Clay Binder Mixed not Layered 1 Gray & Tan \_ 7 54.0 5.0 Tan 14 14 2 10.0 49.0 Clayey Fine Sand Contains Small Focks & Rock Frags \_\_6 Gray & Tan 17 3 24 44.0 15.0 29 SM - Silty Fine Sand W/Clav Layers @ 1/8" Thicl 4 39.0 20.0 \_ 6. \_\_3 5 SC-Calcareous Clayey Sand W/Limestone Decomposed, Clay Layers 4 1/8" to 4" Third Stay.
Top of Roc! 1 6" 71 35.0 24.0 Pull - 1 34.0 24.0 - 29.0 Livestone, Gray, versus in apart Dup 5 0 Rec 2.1 C/L 2.9 **3**0.0 29.0 Bottom of July

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					12:2		Hole No. IT-2E
DRILL	ING LO		VISION Court Atlantia	INSTALL	.ation rlestoi	n Nices	sheet ]
PROJECT			South Atlantic	10. SIZE	AND TYPE	E OF BIT	1 3/8" 10 Splitspurs 5 6x
	Coone	r Rive	er Rediversion	11 DAY	JM FOR EL	EVATION	SHOWN (TBM or MSL) Core BbI
LOCATION	(Coordine	tee or Sta	er Rediversion	Į.			GNATION OF DRILL
DRILLING	N579,	720 E	2,324,330	12. MAN			
		a Diet	riot	12 707		Failing	
HOLE NO.	(As show	on drawi		'S BUR	AL NO. OF	LES TAKE	N 6 -
NAME OF			IT-2E	14. TOT	AL NUMBE	R CORE B	oxes 1
NAME OF L	Parde	n		18. ELE	VATION GE	ROUND WA	TER 56.1
DIRECTION	OF HOL	E		16. DAT			RTED COMPLETED
(X) VERTIC	:AL [_]	NCLINED	DEG. FROM VERT.				Jun 75 19 Jun 75
THICKNES	S OF OVE	RBURDE	N 450	1	VATION TO		
DEPTH OR			43,U				y FOR BORING 27.8
TOTAL DE			7.2	19. SIGN	ATURE OF	inspect I. Davi	
				<del></del>			REMARKS
LEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIA (Description)		RECOV-	BOX OR SAMPLE NO	(Prilling time, water loss, depth of weathering, etc., if significant)
	ь	c	d		•		9
!	$\Box$				:		Blows
	,, <u>,</u> =		Ton a Callada				Ft
65-1	<u> </u>	7///	CL-Fine Sandy Clay -	Tan	ļ	<b>A</b>	
			CL-Pine Sandy Clay -	. 0.11			7
:						,	1.2
		///					<u> </u>
i ! ! ! ! .	- , , <del>-  </del>	////				.	18
61.1	5.0		Texture is uniform-Mix	od		<b>T</b>	21
	-		Color - Color not Laye		}	2	
			Red & Tan			4	18
			<u> </u>				
	=		Silty Clay W/Silt Laye	rs			18
56.1	10.0		about ½" Thick Average			-	19
		///	Layers of CL & Silt, A nate. Tan, Red & Gray			3	
		///	hate. ran, ked G Gray	•		🗼	<u>18</u>
		111				1	
			SC-Clayey Fine and Med Sand with Gravel -		ĺ	1	LAB CLASSIFICATION SPL. ELEV CLASS 10
51.1	15.0		Sand with draver -	i dii			5 46.1-36.1 SM
						4	8
:		///.			]	1   1	<del></del>
						!	9
					İ		c c
46,1	20.0					- <del></del>	
İ	=	///	Clay Fine Sand and Cla		}	1 🕈	_7
1	_	///	Mixed, Bun not Layered				9
		///	Sand Tan, Clay Lt. Gray	У			
į	=	///					<u></u>
91.1.	25.0	///				5	
<del>7</del>		////					
	-	///				;	8
		///					
							9
7. 1 '	<sub>30 0</sub> ⊐	////				]	10
		, , ,	1				L
30.1		£ £4.4	Continue on Sheet 2			-	263

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O.

DRILLING PROJECT	LOG	(Cont :	Sheet) ELEVATION TOP OF HOLE	66.11 istoration			Hole No.	IT-2E   SHEET 2
Coope	r Rive	r Redi	yersion		is Lata	llistri.		OF O SHEETS
FLEVATION	DEPTH	recei40	CLASSIFICATIONA OF ALL	tiums	% COP- PECOS EPS	S APL	RE) Diffling fone	MARKS water loss, depth of with ignificants
35.1	ь 31.0 <u>-</u>	ļ	Rock Fragments: Op- From Via to 51.4	14.1	t	*		Rec 0.3
31.1	. <b>3</b> 5 . Ω	1.1	Linestone W/Sand Lo Hard limestone) Gra Sandatone, calcard with shot fragmen	)	•	Box 1	0	
26.1	-40.0		i The item of			•	· ,	Blow/Ft 47
20.1	-		$(A_{ij}(t), x_{ij}) = C_{ij}(t)$					39
								$\frac{48}{41}$ .
21.1	45.0		†	!				35 46
				;				57
15.9	50.2							85
			r - Fatins of H.J 	71. · · ·				į
1	-			:				
				1 1 1				
						<b>!</b>		
;						;		
i	  	į						
	- 1					· .		264

DRILLING	LOG (	Cont Sheet)	CL BOT	1.1			Hole No.	1T-3
PROJECT		· ·	*****					SHEET 2
Cooper	River	Rediversor		* 31.9n	$P_{i,j} > t$	ان زار		OF 2 SHEETS
- 1		1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	: • · ·	The Co	18 19	r te j Grant K	R	EMARKS - water love depth of
FLEVATION	DEPTH	LEGEND D	a C	1.5			a arberen	er of ignificants
a J	ь		1	. t		f :		g Blow/Ft
			ing the CA conti			1		4
j	-1	The first agreement	( * * * * * * * * * * * * * * * * * * *			!		
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		1111						-
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. 29.5	. 35.AL					. 7		
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	1	1111						:
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	,							
24.5	L40.0 🗓	111				,		
į	•	John State Commencer				7		7
	-							5
	1							19.75
21.0	[43.5]	177 k						10
	, .	Hattom of	Hole 45.5	,				
ļ	1	, Dowedla St	11000	•	'	,		
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	LOIVISION	INSTALL	ATION		Hole No	TSHEET
DRILLING LOG	South Atlantic		leston	Distr	ict	OF - SHEETS
HR) ECT		10. 517 E	AND TYP	E OF BIT	1 3/8"ID Sp	<u> 115,00 a 1.48</u>
Coper kiver Red	version	III DAT	JM FOR EL		N SHOWN (TRM of MS	(Correction
577,020 E2,318	490	12 MAN	JFACTURE	MS ER S DES	IL	<u> </u>
OR LLING AGENCY			Eai	Ling 3	314	
HOLE NO (As shown on d	rewing title	13. TOT	AL NO. OF	OVĚR- LES TAK	DISTURBED EN: C	UNS ET FRED
and tite number)	IT-10	14 TOT	AL NUMBE	R CORE	BOXES 4	· · · · · · · · · · · · · · · · · · ·
NAME OF DRILLER		<b></b>	VATION GE			
arden Direction of Hole		16 DAT				COMPLETE
A VERTICAL ( INCL)	NED DEG. FROM VERT.				8 May 75	28 May 75
THE ANESS OF OVERBUI	10EN 24.5		VATION TO			_7 <u>5.8</u>
CEPTH DRILLED INTO R			ATURE OF		TOR	86.4
TOTAL DEPTH OF HOLE	46.6			C. Day		
E ATION DEPTH LEG	Description	ALS	% CORE RECOV- ERY	BOX OF SAMPLE NO	(Drilling time, wi weathering, etc.	ARKS ster lose, depth of, it significant
·	: d		•		<del></del>	<u>g</u>
===						Blows
a.a .u.u =	Top of Hole					Ft
	SC-Clayey fine sand					4
_//	tan & gray				-	
						- 6
	<b>%</b> 1		[ [	1		
<u>// ۲۰۱۲ نامة</u>					İ	
-(//						
<b>-</b> fi	MH-Micaleous silty Cla			1 7	,	5
- T	. Mil-Micareous sirty cia	1 y		1	-	
. 3						
7-8-410-0	1				3	<u>.</u>
						3
=///	CH-Fat clay - gray			1		_4_
: R15 a -					LAB CLASSIFI	CATION 5
-					SPL.	CLASS
				2	1 3	CL <u>5</u>
						_ 4
20.0	4					
-1//	SC Calaprasus alayers	and		1		.1
1//	SC-Calcareous clayey s with limestone - gr					1.5
1//	-	ray		:		
21.5	Top of Rock 24.5'	•		1 1	İ	. 10 
		100 th		·	Pull - 1	
····	Limestone, light tan weed, slightly sandy to			Core	24.5 - 29.2	
3-1-1	Material appears to be			Box 1	Run 4.7	
<u> </u>	worked. Erosional cont		.47	, ,	Rec 4.7	
	Limestone "coquina" we	211		ļ	C/I 0.0	
<del></del>	cemented hard			<del> </del>	<del></del>	
•		2				767
	Continue on Sheet	Ľ	1	!		~~/

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		(Cont	Sheet)	ON TOP OF HOLE	78.8			Hole No.	IT-10
Coop	er Ri	ver R	ediversion	INSTAL	Lh:	rlesto	on Dis		SHEET 2
		<del></del>	CLASS	STICATION OF MATER		% CORF			OF 2 SHEETS
EVATION !		LEGEND		· Description,		RECOV L ERY	SAMPLE	· (Drilling time	water loss, depth of
<b>4</b> ;	Ь	+, ,	•	d		e .	f	•	μ
	-	<del>]                                    </del>	∃ Limesto	ne, dark gray	'''coquir	įa''		Pull - 2	
			Clay-tra	mented-hard nsition zone	dark gra	ly		29.2 - 33.6	
		12	with she	II fragments	leached,	,	2	Run 4.4 Rec 4.4	(; (I _ O _ O
		<b></b>	consolid					<del>-</del>	C/L 0.0
43.8	35.0		<del></del>					Pull - 3	
i.				ark gray with			3	33.6 - 38.6	
				er. Thin lam		I		Run 5.0 Rec 3.7	
				beds. Some re partially		<b>\</b>		C/L 1.3	
:				areas contai				· · · · · · · · · · · · · · · · · · ·	
38.8 4	10.0		of sand.				Ť	Pull -4	
			1	42.3 42.5			į	38.6 - 43.6	
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## COOPER RIVER REDIVERSION PROJECT POWERHOUSE FOUNDATION ANALYSIS

#### SECTION 3

PHILADELPHIA DISTRICT CORE BORING SUPPLEMENTARY LOGS

U.S.ARMY ENGINEERING DISTRICT, SAVANNAH
CORPS OF ENGINEERS
SAVANNAH, GEORGIA
FEBRUARY 1976

#### COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

#### HOLE NO. 52

GROUND ELEVATION 52.8

LOCATION: Station 597+20 75' Left Centerline

Sample No.	Depth In Feet	Elevation	Description
Jar 1	0 to 1	52.8 to 51.8	Sand, Dark grey, fine, quartz some silt SM
Jar 2	2 to 3	50.8 to 49.8	Sand, Light grey, fine-coarse quartz, some silt. SM
Jar 3	3 to 4	49.8 to 48.8	Sand, Light grey, fine-coarse quartz, some clay, SC
Jar 4	4 to 5	48.8 to 47.8	Sand, light prey, fine-coarse quartz, some clay, SC
Jar 5	5 to 6	47.8 to 46.8	Sand, light grey, fine-coarse quartz, some clay SC
Jar 6	7 to 8	45.8 to 44.8	Sand, light grey, fine-medium quartz, trace silt and clay SP-SC
Jar 7	8 to 9	44.8 to 43.8	Sand, tan-orange brown, fine- medium quartz, trace silty clay, SP-SC
Jar 8	11 to 12	41.8 to 40.8	Sand, tan & grev, fine-medium quartz, some clay SC
Jar 9	14 to 15	38.8 to 37.8	Clay-sand, mixture dark grey clay and light grey fine quartz sand, lavers to 1/4", clay layers 70?
Jar 10	18 to 19	34.8 to 33.8	Sand Clay mixture gray fine- medium quartz sand and dark grey clay lavers to 1/4" sand lavers 60% SP & CL
'ar ll	20.0 to 20.5	32.8 to 32.3	Sand -light grey fine to medium quartz with a trace of silt and dark grey clay layers - 1", sand 70% SP-SM

# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

GROUND ELEVATION 52.8

HOLE NO.52

Sample No.	Depth In feet	Elevation	Description
Jar ll	20 to 20.5	32.8 to 32.3	Sand, light grey fine to medium quartz with a trace of silt and dark grey clay layers - 1" sand 70% SP-SM
Jar 12	22.0 to 23.0	30.8 to 29.8	Sand, tan and grey fine to medium quartz, some paper thin layers clay, sand 80%, SP-SC
Jar 13	23.0 to 24.0	29.8 to 28.8	Clay-sand, marble cake like mix dark grev clay and fine light grey sand, clay 70% CL
Jar 14	24 to 25.0	28.8 to 27.8	Clay-sand, marble cake like mix dark grey clay and fine light grey sand, clay 70% CL
Jar 15	27.0 to 28.0	25.8 to 24.8	Clay, dark grey clay with lavers to 1/4" of fine quartz sand, clay 80% CL
Jar 16	29.0 to 30.0	23.8 to 22.8	Clay-sand, marble cake like mix dark, grev clay and fine, light grey quartz sand clay 80%
Jar 17	30.0 to 30.5	22.8 to 22.3	Clay-sand, marble cake like mix dark,grey clay and fine, light grey sand, clay 80% CL
Jar 18	35.0 to 36.0	17.8 to 16.8	Clay-sand mixture dark grey clay and fine, light grey quartz sand, clay 60% CL & SP
Jar 19	39.0 to 41.0	13.8 to 11.8	Clav-sand, dark grey, clay with layers to 1/4" of fine quartz sand, clay 80% CL
Jar 20	41.9 to 43.5	11.8 to 9.3	Sand-clay, mixture light grew fine quartz sand and dark grey clay sand 60% SP&CL
Jar 22	50.0 to 51.0	2.8 to 1.8	Sand, grev fine-medium quartz, w/some nockets clav to l", some silt SM

### BY J.R. HARRIS

# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

GROUND ELEVATION 52.8

HOLE NO.52

Sample No.	Depth In feet	Elevation	Description
Jar 23	64.0 to 66.	1 -11.2 to -13.3	Sand, light grey fine quartz, occasional paper thin layer of clay
. Jar 24	69.0 to 69.	3 -16.2 to -16.5	Sand, light grey fine quartz, sand, occasional paper thin layer of clay
Jar 25	72.0 to 72.	2 -19.2 to -19.4	Sand, light grey fine quartz sand, occasional paper thin layer of clay SP
Jar 26	74.7 to 74.	9 -21.9 to -22.1	Sand, light grey fine quartz sand, occasional layer clay 1/8" SP
Jar 27	77.6 to 77.	7 -24.8 to -25.1	Sand, brown-grey, fine to medium quartz, some clay, trace fine decomposed shell SC

HOLE NO. 53

CROUND ELEVATION 51.8

LOCATION: Station 597+00, 75' Right Centerline

Sample No.	Depth In Feet	Elevation	Description
Jar 1	0.5 to 1.5	51.3 to 50.3	Sand, tan fine quartz, trace silty clay SP-SC
Jar 2	5.0 to 6.0	46.8 to 45.8	Sand, grev fine-coarse, clavey, trace fine-coarse shell SC
Jar 3	10.0 to 11.0	41.8 to 40.8	Sand, tan-orange brown, fine quartz, some clay, some clay layers to 1/8", partly cemented SC
Jar 4	15.0 to 16.0	36.8 to 35.8	Clay, dark grey w/pockets grev, fine SP sand, clays 90% CL.
Jar 5	20.0 to 21.0	31.8 to 30.8	Clay, dark grey w/pockets grev, fine, SP sand, clay 90% CL
Jar 6	25.0 to 26.0	26.8 to 25.8	Sand, light grey fine quartz w/clay layers to 1/8", sand 60%, clay 40% SP & CL.
Jar 7	30.0 to 31.0	21.8 to 20.8	Sand, light grey, fine quartz w/dark grey clay layers to 1/2", sand 60%, clay 40% SP & CL
Jar 8	35.0 to 36.0	16.8 to 15.8	Clay, dark grey, clay w/light grey fine quartz sand layers to 1/8", clay 70% sand 30% CL & SP
lar 9	40.0 to 41.0	11.8 to 10.8	Sand, light grey, fine-medium, quartz, w/some dark, grey clay layers to 1/8", sand 70% SP
Jar 10	45.0 to 46.0	6.8 to 5.8	Sand, light grev, fine quartz, trace silt, few lavers clav to 1/8", SP-SM
īar 11	50.0 to 51.0	1.3 to 0.3	Sand-clay, marble cake mix light- grey fine quartz & grey sandy clay, sandy clay 60% CL & Sp
Jar 12	55.0 to 56.0 -	-3.7 to -4.7	Sand, grey, medium-fine quartz some silt SM

### COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

GROUND ELEVATION 51.3

Sample No.	Depth In feet	Elevation	Description
Jar 13	60.0 to 61.0	-8.7 to 9.7	Sand grey, medium - fine quartz some silt, few layers clay to 1/16" SM
Jar 14	65.0 to 66.0	-13.7 to -14.7	Sand, light grey, fine quartz few clay layers to 1/16" SP
Jar 15	70.0 to 71.0	-18.7 to -19.7	Clay, dark grey w/layers sand to 1/8" CL
Jar 16	75.0 to 76.0	-23.7 to -24.7	Sand, light grey, medium, fine quartz SP

HOLE NO. 58

GROUND ELEVATION 48.0

LOCATION: Station 599+35, 75' Right Centerline

Sample No.	Depth In Feet	Elevation	Description
1	0.5 to 1.0	48.0 to 47.5	Sand, brown, fine quartz trace silty clay SP- SC
2	2.5 to 3.6	45.5 to 44.4	Sand, brown, fine quartz partly cemented SP
3	6.0 to 7.0	42.0 to 41.0	Sand, tan, medium-coarse quartz trace coarse-fine shell SP
4	9.0 to 10.5	39.0 to 37.5	Clay-sand, layers and pockets to 2" dark grey clay & light grey fine quartz sand, few pieces gravel, partial cementing in some of sand CL & SP
5	12.5 to 13.5	35.5 to 34.5	Clav-sand, lavers & pockets to 1" dark grey clay & light grey fine quartz sand CL & SP
6	15.5 to 16.5	32.5 to 31.5	Sand-clay, layers & pockets to 2" light grey fine quartz & dark grey clay sand layers 60% SP & CL
7	18.5 to 19.5	29.5 to 28.5	Sand-clay, layers & pockets dark grey clay & fine light grey quartz sand to 1-1/2"  SP & CL
8	2?.0 to 22.5	27.0 to 26.0	Clay-sand, layers & pockets to 1.5" of dark grey clay & fine light grey quartz sand CL & SP
9	24.5 to 25.5	23.5 to 22.5	Clav, dark grey layers to 1" w/few paper thin layers light grey fine quartz sand CL
10	27.5 to 28.5	20.5 to 19.5	Clay-sand, marble cake mixture of dark grev clay & fine light grev quartz sand clay 60%, sand 40% CL & SP

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# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

GROUND ELEVATION 48.0

Sample No.	Depth In feet	Elevation	Description
11	30.5 to 31.5	17.5 to 16.5	Clay-sand, dark grey clay layers to 1/2" w/naper thin layers light grey fine quartz, CL
12	33.5 to 34.5	14.5 to 13.5	Sand-clay, light grey fine quartz w/dark gray clay layers to 1" SP & CL
13	36.5 to 37.5	11.5 to 10.5	Sand, light grey fine quartz w/occasional paper thin layers clay, sand layers 70% SP
14	39.5 to 40.5	8.5 to 7.5	Sand, light grey fine quartz, occasional paper thin layers clay
15	41.5 to 42.5	6.5 to 5.5	Sand, light grey fine quartz, numerous paper thin layers clay SP
17	48.5 to 49.5	0.5 to -1.5	Sand-clay grey fine-medium quartz w/layers dark grey clay to 1/2"
18	52.5 to 53.5	-4.5 to -5.5	Sand-clay layers to 1" of light grey fine quartz & dark grey clay CL & SP
19	54.5 to 55.5 -	-6.5 to -7.5	Sand, tan-light grey fine quartz w/ some layers and pockets dark grey clay to 1/4", sand 70% SP
20	57.5 to 58.5	-9.5 to -10.5	Sand, light grey fine quartz w/some layers and pockets dark grey clay to 1/4", sand 70% SP
21	60.5 to 61.5	-12.5 to -13.5	Sand light grey fine quartz w/some layers and pockets dark grey clay to 1/4", sand 707
22	63.5 to 64.5	-15.5 to -16.5	Sand, light grey fine quartz, occasional layers clay to 1/8". SP



COOPER RIVER
REDIVERSION PROJECT
SUPPLEMENTARY LOG

GROUND ELEVATION 48.0

HOLE NO.58

Sample No.	Depth <u>In feet</u>	Elevation	
23	66.0 to 67.5	-18.0 to -19.0	

#### Description

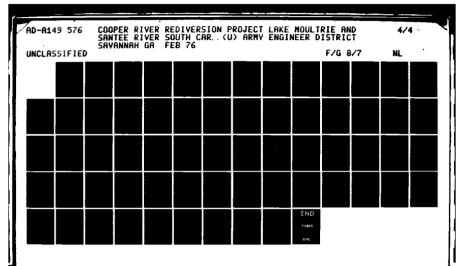
Sand, brown fine-medium quartz, some silty clay & soft decomposed shell, nartly cemented SC

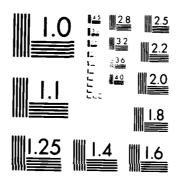
HOLE NO. 60

GROUND ELEVATION 73.8

LOCATION: 595+00, 550' Left Centerline

Sample No.	Depth In Feet	Elevation	Description
1.	0 to 2.0	73.8 to 71.8	Sand, brown, fine-medium quartz trace - some silt, SP-SM
2	2.0 to 5.0	71.8 to 68.8	Sand, red brown medium-fine quartz, clayey, firm, SC
3	5.0 to 8.0	68.8 to 65.8	Sand, red brown w/yellow brown paper thin layers, fine-medium quartz, clayey, firm SC
4	8.0 to 11.0	65.8 to 62.8	Silt, red brown, fine sandy clayey ML
5	11.0 to 14.0	62.8 to 59.8	Silt, red brown w/paper thin layers grey clay, firm ML & CL
6	14.0 to 17.0	59.8 to 56.8	Clay, red brown w/light grey paper thin layers, some thin lavers yellow brown silt, firm-stiff CH & CL
7	17.0 to 20.0	56.8 to 53.8	Clay, red brown & light grey w/paper thin layers silty firm-stiff CH & CL
8	20.0 to 23.0	53.8 to 50.8	Sand, brown coarse-fine quartz, trace-some clay SP-SC
9	23.0 to 26.0	50.8 to 47.8	Sand, brown, coarse-fine quartz, trace-some silt SP-SM
10	26.0 to 29.0	47.8 to 44.8	Sand, yellow brown, coarse-fine quartz, trace-some silt SP-SM
11	29.0 to 32.0	44.8 to 41.8	Sand, yellow brown fine quartz trace- some silt SP-SM
12	32.0 to 35.0	41.8 to 39.8	Sand, vellow brown fine quartz.  some silt, some discontinuous paper thin lavers grey clav SM





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1967 4

#### HOLE NO. 61

GROUND ELEVATION 55.3

LOCATION: Station 595+00, 500' Right Centerline

Sample No.	Depth In Feet	Elevation	<u>Nescription</u>
1	0.0 to 0.2	55.3 to 55.1	Sand, grey, fine to medium quartz some silt, trace organic material SM
2	2.8 to 3.1	52.5 to 52.3	Sand, red brown, coarse-fine quartz, clayey, firm SC
3	5.0 to 5.2	50.3 to 50.1	Sand, red brown-grey, coarse- fine, quartz, clayey, stiff SC
4	5.3 to 8.2	47.3 to 47.1	Sand, red brown, coarse-fine, clayey, firm SC
5	8.2 to 10.0	47.1 to 45.3	Sand, red brown, coarse-fine quartz, clayey SC
6	14.5 to 14.7	40.8 to 40.6	Sand, tan & grey, fine quartz some pockets clay, trace - some silt SM
7	16.5 to 16.7	38.8 to 38.6	Sand, tan, fine quartz, trace - some silt, some pockets of clay to 1/4" SM & CL

# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. 62

GROUND ELEVATION 68.6

LOCATION: Station 595+00, 300' Left Centerline

Sample No.	DapEast	Elevation	Description
Jar 1	1.0 to 4.0	67.6 to 64.6	Clay, orange brown, silty fine sandy CL
Jar 2	5.0 to 9.0	63.6 to 59.6	Clay-silt, red brown & grey layers to 1/16" clay & fine sandy silt CL & ML
Jar 3	9.0 to 14.0	59.6 to 54.6	Clay, red w/white layers to 1/16", some silt CL
Jar 4	15.0 to 20.0	53.6 to 48.6	Sand, red brown, medium to coarse quartz, clayey SC
Jar 5	20.0 to 25.5	48.6 to 43.1	Sand, brown, medium to coarse quartz, some clay SC
Jar 6	25.5 to 31.5	43.1 to 37.1	Sand, tan, fine quartz w/trace some silt SM

HOLE NO. 63

GROUND ELEVATION 50.2

LOCATION: Station 594+80, 250' Right Centerline

Sample No.	Depth In Feet	Elevation	Description
Jar 1	1.0 co 1.2	49.2 to 49.0	Sænd, tan, fine, quartz, some silt, SM
Jar 2	2.5 to 2.7	47.7 to 47.5	Sand, buff, fine, quartz, trace silt, few small pockets clay SP-SM
Jar 3	5.0 to 5.2	45.2 to 45.0	Sand, tan, fine quartz, some silt, occasional pocket clay to 1/4" SP-SM
Jar 4	10.0 to 11.5	40.2 to 38.7	Sand, red brown, fine quartz, with brown & white clay layers to 1/16" SP & CL
Jar 5	15.0 to 16.5	35.2 to 33.7	Clay, layers dark grey clay & light grey fine quartz to 1", clay 60% CL & SP
Jar 6	20.0 to 21.5	30.2 to 28.7	Clay-sand, layers dark grey clay & light grey fine quartz to 1" CL & SP
Jar 7	25.0 to 26.5	25.2 to 23.7	Clay-sand, layers dark grey clay & light grey fine quartz to 1" CL & SP
Jar 8	30.0 to 31.5	20.2 to 18.7	Clay-sand, layers dark grey clay fine quartz to 1" CL & SP
Jar 9	35.0 to 36.5	15.2 to 13.7	Sand grey, medium-fine quartz, some clayey silt SM
Jar 10	40.0 to 41.5	10.2 to 8.7	Sand, mix of light grey & dark grey quartz with some silt SM & SP

COOPER RIVER
REDIVERSION PROJECT
SUPPLEMENTARY LOG

GROUND ELEVATION 50.2

Sample No.	Depth In feet	Elevation	Description
Jar 11	45.0 to 46.0	5.2 to 4.2	Sand, light grey, fine quartz, some pockets clay to 1/2" SP
Jar 12	50.0 to 50.4	0.2 to -0.2	Sand, light grey, fine quartz, some pockets clay to 1/2" SP
Jar 13	55.0 to 55.3	2 -4.8 to -5.0	Sand, light grey, fine quartz, occasional clay layer to 1/8"
Jar 14	60.0 to 60.	2 -9.8 to -10.0	Sand, grey, fine quartz trace silt SP-SM
Jar 15	65.0 to 65.	2 -14.8 to -15.0	Sand, grey, fine, quartz, occasional paper thin layer of clay
Jar 16	75.0 to 75.	2 -24.8 to -25.0	Sand grey fine quartz, occasion- al paper thin layer of clay SP
Jar 17	81.0 to 82.	0 -30.8 to -31.0	Sand, grey medium to fine quartz, trace silt, some pockets clayev sand SP-SM & SC

## COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. 64

GROUND ELEVATION 54.1

LOCATION: Station 597+10, Centerline

Sample No.	Depth In Feet	Elevation	Description
1	0 to 1.0	54.1 to 53.1	Sand, prey, fine quartz, trace silt SP-SM
2	4.8 to 5.0	49.3 to 49.0	Sand, brown-grey, fine-medium quartz, trace-some silt SM
3	6.5 to 6.8	47.6 to 47.3	Sand, light grey, coarse-fine quartz, clayey, firm SC
4	9.7 to 10.0	44.4 to 44.1	Sand, tan & red brown, coarse-fin quartz, clayey, trace fine gravel SC
5	12.7 to 13.1	41.4 to 41.1	Sand-clay, brown, fine quartz, some silt w/discontinuous, paper thin layers clay SM & CL
6	17.5 to 17.7	36.6 to 36.4	Clay, dark grey clay with paper thin layers silt & fine silty sand CL
7	20.0 to 21.0	34.1 to 33.1	Sand-clay layers to 1" of light grey fine quartz w/a trace of silt and dark grey clay CL & SP, SP-SM

# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

#### HOLE NO. 65

GROUND ELEVATION 70.6

LOCATION: Station, 597+00, 400' Left Centerline

Sample No.	Depth In Feet	Elevation	Description
Jar 1	0.0 to 0.2	70.6 to 70.4	Sand, brown, fine quartz silty SM
Jar 2	0.9 to 1.0	69.7 to 69.6	Sand, yellow brown, fine quartz, clayey SC
Jar 3	1.5 to 4.0	69.1 to 66.6	Clay, red & yellow brown, stiff CL & CH
Jar 4	4.0 to 5.5	66.6 to 65.1	Clay, red & yellow brown, fine, sandy, stiff CL & CH
Jar 5	5.8 to 6.0	64.8 to 64.6	Clay, red-yellow brown & light grey, silty firm CL
Jar 6	10.0 to 10.2	60.6 to 60.4	Clay, red-yellow brown & light grey, firm CL
Jar 7	10.2 to 13.0	60.4 to 57.6	Clay, red-yellow brown & light grey, firm CL
Jar 8	15.0 to 16.2	55.6 to 54.4	Clay, red brown & grey, silty firm CL
Jar 9	17.6 to 17.9	53.0 to 52.8	Sand, yellow brown, coarse- fine quartz, trace-some clay
Jar 10	18.0 to 19.5	52.6 to 51.1	SC Sand, yellow brown, coarse-fine quartz, some pockets red clay SC
Jar 11	19.5 to 21.6	51.1 to 49.6	Sand, brown, coarse-fine quartz trace-some silt SM
Jar 12	21.0 to 22.5	49.6 to 48.1	Sand, brown coarse-fine quartz, silty, party cemented SM
Jar 13	22.5 to 24.0	48.1 to 46.6	Sand, brown coarse-fine quartz, silty some cementing SM

# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOC

GROUND ELEVATION 70.6

Sample No.	Depth In feet	Elevation	Description
Jar 14	24.5 to 25.5	46.1 to 45.1	Sand, brown coarse-fine quartz, trace silt & fine gravel, some cementing SM
Jar 15	25.5 to 27.0	45.1 to 43.6	Clay grey w/paper thin layers yellow-brown sand CL
Jar 16	27.0 to 28.9	43.6 to 42.7	Clay dark grev w/layers & pockets clean sand to 1/8" CL

# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. 65

GROUND ELEVATION 70.6

LOCATION: Station 597+00, 400' Left Centerline

Sample No.	Depth In Feet	Elevation		Description
Pull 1 28.0	0 to 31.0	42.6 to 39.6	s	and-clay alternating 1/8"-1/4" layers fine light grey quartz sand & dark grey clay, upper 1.0' disturbed & partly cemented estimate 50% each type. SP & CL
Pull 2 31.0	0 to 34.0	39.6 to 36.6	31.0'-32.5'	Clay, dark grey 1/8"-2"layers w/scattered 1/16" layers fine quartz sand CL
			32.5'-34.0	light grey fine-veryfine quartz w/layers to 1/8" clay at 6" spacing SP
Pull 3 34.0	0 to 37.0	36.6 to 33.6	34.0'-34.3'	Sand, coarse-fine clayey, tan & orange speckling, (probably cave) SC
			34.3'-37.0'	marble cake mix of light grey fine quartz & dark grey clay, partly cemented, some decomposed shell SP & CL
Pull 4 37.0	0 to 40.0	33.6 to 30.6	37.0'-37.3'	Clay, dark grey w/few 1/16" layers SP sand CL
			37.3'-38.7	Sand, light grey, firm quartz, partly cemented SP
			38.7'-40.0	No recovery
Pull 5 40.0	0 to 42.6	30.6 to 28.0	40.0' - 40.5	Sand, light grey, fine quartz with 1/8" layers clay at 2"-3" spacing SP
			40.5'-41.7'	
			41.7'-42.6'	Sand, fine light grey quartz few 1/16" layers clay SP 90%
Pull 6 42.6	6 to 47.0	28.0 to 23.6	42.6'-44.0'	Clay-Sand, discontinuous 1/8" -2" layers light grey fine quartz & dark grey clay, layers contain pockets to 1/2" of clay sand clay 60%, sand 40% CL & SP

GROUND ELEVATION 70.6

Sample No.	Depth In feet	Elevation	Description
	to 50.0	23.6 to 20.6	47.0' - 48.2' Sand-Clay,  1/8" - 2" layers light gray fine quartz & dark grey clay, sand 60%, clay 40%, SP & CL  48.2' - 50.0' Clay-sand, 1/6" - 1" layers dark grey clay and fine light grey, quartz clay 75% sand 25% CL
Pull 8 50.0	to 53.0	20.6 to 19.8	50.0' - 50.8' Sand, grey, medium to fine, quartz, some silt SM 50.8' - 51.1" Clay dark grey layers to 1" w/layers to 1" of light grey fine sand clay 75% CL 51.1' - 51.7' Sand grey, mediumfine quartz, some silt, scattered clay layers - 1/8" SM 51.7' - 52.4' Clay-sand, layers dark grey clay & fine light gray clay to 2" CL & SP
Pull 9 53.0	to 57.0	17.6 to +13.6	53.0 - 54.2 Sand dark grey medium- fine quartz, some pockets clay to 1", few cemented SP 54.2 - 57.2 Sand, light grey fine quartz w/layers to 1" of dark gray clay & 3'-4' spacing, sand 85% clay 15% SP
Pull 10 57.0	to 61.0	13.6 to 9.6	57.0'-57.4' Clay dark grey w/few 1/16" layers sand, clay 90% CL 57.4'-58.2' Sand, fine light-gray quartz SP 58.2' - 58-7' Clay-sand layers to 1/4" dark grey clay & fine light grey quartz SP & CL 58.7' - 59.3' Sand, light grey fine quartz, 1" layer clay SP 59.3' - 61.0' No recovery
Pull 11 61.0	to 64.0	9.6 to 6.6	61.0'-62.0' Clay dark grey w/1/16" layers sand CL 62.0'-64.0' Sand light grey fine quartz w/two 1" layers clay SP

# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

GROUND ELEVATION 70.6

Sample No.	Depth In feet	<u>Elevation</u>	Description
Pull 12 64.0	to 67.0	6.6 to 3.6	Sand fine light grey quartz, two 2" layers of clay, clay layers have paper thin laminae sand SP
Pull 13 67.0	to 70.0	3.6 to 0.6	67.0'-68.0' Sand dark grey medium-fine quartz, some silt, (mixed by drilling) SM 68.0' - 70' Sand grey medium-fine quartz, some coarse shell, 1" layer with lignite 69.0' SP
Pull 14 70.0	to 73.0	0.6 to -2.4	Sand, grey medium-fine quartz some coarse shell, 0.6' layer cemented at 72' SP
Pull 15 73.0 Loss 2.0'	to 77.0	-2.4 to -6.4	Sand grey, fine-medium quartz, trace coarse-fine shell & silt, SP-SM
Pull 16 77.0 Loss 1.0'	to 80.0	-6.4 to -9.4	Sand, light grey fine quartz grades to medium-fine at 78.5', 1/8" layers clay at 1" spacing 78.5' - 80.0 SP
Pull 17 80.0 Loss 1.7'	to 83.0	-9.4 to -12.4	Sand, light grey fine quartz SP
Pull 18 83.0	to 86.0	-12.4 tc -15.4	Sand light grey, fine-medium quartz, 1/2" layer silt at 85'
Pull 19 86.0	to 89.0	-15.4 to -18.4	Sand light grey fine-medium quartz w/ occasional 1/16" layer clay SP
Pull 20 89.0 Loss 2.5'	to 94.0	-18.4 to -23.6	Sand, 89.0'-89.7 tan-grey coarse quartz 89.7'-91.5 light grey medium-fine 91.5-94.0, no recovery SP
Pull 21 94.0	) to 98.0	-23.6 to -27.6	Sandstone-shale 94.2'-94.8' Sandstone, silty 94.8'-95.8' Shale, sandy 95.8'-98.1' Shale, sandy

HOLE NO. 66

GROUND ELEVATION 53.4

LOCATION: Station 597+10, 400' Right Centerline

Sample No	Depth In Feet	Elevation	Description
Jar l	1.0 to 1.2	52.4 to 52.2	Sand, brown, fine-medium, quartz, trace-some silt, SM
Jar 2	3.0 to 3.2	49.4 to 49.2	Sand, red brown & orange fine- coarse quartz, some clay SC
Jar 3	5.0 to 5.2	48.4 to 48.2	Sand, red brown coarse quartz, som .y, .yw pieces gra SC
Jar 4	7.0 to 7.2	46.4 to 46.2	Sand, Buff, med'um 'ine quartz
Jar 5	10.0 to 10.2	43.4 to 43.2	Sand-clay, orange brown, fine silty sand w/ clay layers to 1" SC & CL
Jar 6	15.0 to 16.5	38.4 to 36.9	Sand, brown, fine quartz w/trace -some silt & small pockets of light grey clay SM
Jar 7	20.0 to 21.5	33.4 to 31.9	Clay dark grey layers to 2" w/layers light grey sand to 1", clay 70% CL
Jar 8	25.0 to 25.4	28.4 to 28.0	Clay, layers dark gray clay and light grey fine quartz sand, clay 55% CL & SP
Jar 9	30.0 to 31.5	23.4 t	Clay, layers dark grey clay and light grey fine quartz sand to 1", clay 60%CL & SP
Jar 10	35.0 to 36.5	18.4 to 17.9	Clay-sand, layers dark gray clay & fine light gray sand, clay 70% CL
Jar 11	40.0 to 41.5	13.4 to 12.0	Sand, fine light gray quartz w/occasional paper thin clay layers SP

# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

GROUND ELEVATION 53.4

	Depth		
Sample No		Elevation	Description
Jar 12	45.0 to 46.5	8.4 to 6.9	Sand, grey medium-fine quartz, some coarse fine shell, trace - some silt, SP-SM
Jar 13	50.0 to 51.5	3.4 to 1.9	Sand-clay, layers fine quartz sand w/some shell and dark grev clay to 1" SP & CL
Jar 14	55.0 to 56.5	-1.6 to -2.0	Sand-clay, layers dark grey clay & light grey fine quartz to 1", clay 60% CL & SP
Jar 15	60.0 to 60.2	-6.6 to -6.8	Sand, light gray fine quartz w/occasional paper thin layers clay, sand 90% SP
Jar 16	65.4 to 65.8	-12.0 to -12.4	and, light gray fine quartz w/occasional paper thin layers clay, sand 90% SP
Jar 17	70.0 to 70.2	-16.6 to -16.8	Sand, light gray fine quartz, few discontinuous paper thin layers clay
Jar 18	80.0 to 80.2	-26.6 to -26.8	Sand, light grey fine quartz, few discontinous paper thin layers of clay SP
Jar 19	82.0 to 82.2	-28.6 to -28.6	Sand, brown-gray, fine medium quartz, some coarse-fine decomposed shell, some silt, few cemented pockets SM

# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. 67

GROUND ELEVATION 63.4

LOCATION: Station 598+60, 320' Left Centerline

Sample No	Depth In Feet	Elevation	Description
Jar 1	0.7 to 0.9	62.7 to 62.5	Sand, brown, fine, quartz, some silt SM
Jar 2	2.3 to 2.5	61.1 to 60.9	Clay, red brown, fine, sandy firm CL
Jar 3	4.3 to 4.5	59.1 to 58.9	Clay, red brown & erey, firm CL
Jar 4	5.8 to 6.4	57.6 to 57.4	Clay, red brown & grey, firm CL
Jar 5	8.2 to 8.4	55.2 to 55.0	Sand, red brown, fine-coarse quartz, some clay SC
Jar 6	10.6 to 10.8	52.8 to 52.6	Sand, red brown, fine-coarse quartz, some clay SC
Jar 7	14.0 to 14.2	49.4 to 49.2	Sand, brown, coarse-fine quartz, trace-some silt, SP-SM
Jar 8	16.0 to 16.2	47.4 to 47.2	Sand, brown, coarse-fine quartz, trace-some silt SP-SM
Jar 9	17.3 to 17.5	46.1 to 45.9	Sand, brown, coarse-fine quartz some gravel trace silt SP-SM
Jar 10	19.3 to 19.5	44.1 to 43.9	Sand, red brown, fine silty clayey SC
Jar 11	21.3 to 21.5	42.1 to 41.9	Clav, grey with paper thin, layers of red brown, sand CL

# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. 68

GROUND ELEVATION 55.4

LOCATION: Station 598+60, 380' Right Centerline

Sample No.	Depth In Feet	Elevation	Description
Jar 1	1.3 to 1.5	53.1 to 52.9	Sand, brown, coarse to fine quartz, some clay SC
Jar 2	1.5 to 4.5	52.9 to 50.9	Sand grey, coarse to fine quartz, clayey SC
Jar 3	4.5 to 5.5	50.9 to 49.9	Sand, grey coarse to fine quartz, clayey SC
Jar 4	5.5 to 6.7	49.9 to 48.7	Sand, grey, coarse to fine quartz, trace gravel & clay SP-SC
Jar 5	8.5 to 8.7	46.9 to 46.7	Sand, tan fine-medium quartz, trace of silt SP-SM
Jar 6	11.1 to 11.3	44.3 to 44.1	Sand tan, fine-medium quartz, trace clayey silt SP-SM
Jar 7	13.1 to 13.3	42.3 to 42.1	Sand, red brown, fine-medium quartz some silt SM
Jar 8	15.1 to 15.3	40.3 to 40.1	Clay, dark grey with layers of fine silty sand to 1" CL
Jar 9	17.1 to 17.3	38.3 to 38.1	Clay, dark grey with layers of fine silty sand to 1" CL
Jar 10	19.5 to 19.7	35.9 to 35.7	Clay, dark grey with layers of fine silty sand CL
Jar 11	21.0 to 21.2	34.4 to 34.2	Clay, dark grey with layers of fine sand CL

### COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. 69

GROUND ELEVATION 61.1

LOCATION: Station 600+20, 400' Left

Sample No	Depth In Feet	Elevation	Description
1	0 to 3.0	61.1 to 58.1	Sand, brown fine-medium quartz, silty SM
2	3.0 to 6.0	58.1 to 55.1	Clay, red brown, firm-stiff CL
3	6.0 to 9.0	55.1 to 52.1	Sand, red brown, coarse-fine clayey, firm SC
4	9.0 to 12.0	52.1 to 49.1	Sand, red brown, coarse-fine clayey, silty, firm SC
5	12.0 to 15.0	49.1 to 46.1	Sand, brown, coarse - fine trace - some clay, SP-SC
6	15.0 to 18.1	46.1 to 43.1	Sand, brown, fine-medium, numerous discontinuous paper thin layers clay, some silt SM-SC
7	18.1 to 21.0	43.1 to 40.1	Sand, yellow brown fine, few discontinuous paper thin layers clay, some silt SM
8	21.0 to 24.0	40.1 to 37.1	Clay-sand, layers to 1/4" of dark grey clay & light grey, fine, quartz sand w/ a trace to some silt CL & SP-SM

## COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. 70

GROUND E	LEVATI	ON	56.	2
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LOCATION: Station 600+20, 400' Right Centerline

Sample No.	Depth In Feet	Elevation	Description
Pull 3 26	5 to 30.5	29.7 to 25.7	Sand light grey, fine, quartz, SP alternating 1/4" layers, clay & sand at 27.2' - 27.5'.
Pull 4 30	.5 to 35.5	25.7 to 31.0	Clay-sand, alternating layers dark grey clay & light grey fine sand CL&SP  30.5' - 31.0', CL w/1/6" layers SP; CL 90%  31.0' - 31.3' SP slightly cemented 31.3' - 31.5', CL w/1/16", layers SP; CL 80%  31.5' - 31.7'. SP-CL 1/8" laminae, 50% each 31.7' - 31.9', CL w/1/16" layers SP; CL 80%  31.9' - 32.1', SP cemented 32.1' - 32.5' CL w/1/4" layers SP; CL 60%  32.5' - 32.9' SP cemented 32.9' - 33.1', CL w/1/16" layers SP; CL 90% 33.1' - 35.5 No recovery
Pull 5 35.	5 to 40.5	20.7 to 15.7	Clay-Sand, alternating layers dark grey clay & fine light grey sand  CL&SP  35.5' - 36.0', SP cemented  36.0' - 38.0', CL w/1/2" layers SP, CL 70%  38.0' - 38.7' CL w/1/2" layers SP; CL 60%  38.7' - 39.4' SP medium-fine quartz some shell  39.4' - 39.7' CL w/1/4" layers SP; CL 90%  39.7' - 40.5' No recovery

GROUND ELEVATION 56.2

Sample No.	Depth In feet	Elevation	Description
Pull 6 40.	5 to 45.5	15.7 to 10.7	40.5' - 40.7' Clay dark grey 40.7' - 45.5' No recovery
Pull 7 45.	5 to 50.5	10.7 to 5.7	45.5' - 46.2', Clay w/ distorted 1/2" layers SP CL 70% 46.2' - 46.7' SP-CL 1/4" layers; 50% 46.7' - 47.0 SP-CL 1/4" layers;50 47.0' - 47.4' SP w/layers to 1/2" CL, SP 60% 47.4' - 50.5' No recovery
Pull 8 50.	5 to 55.5	5.7 to 0.7	Sand Light grey fine quartz scattered paper thin to 1/4" layers clay SP 90%
Pull 9 55.	5 to 60.5	0.7 to-4.3	55.5' to 56.5' Marble cake mix f-m SP & CL SP 70% 56.5' to 57.2' SP fine, w/scat- tered layers to 1/8" CL SP 95% 57.2' to 57.4' CL w/1/16" layers CL 60% 57.4' to 57.6' ML Calcareous 57.6' to 58.1', distorted layers to 1/2", CL & SP 50% each 58.1' to 60.5' No recovery
Pull 10 60.	5 to 65.5	-4.3 to -9.3	60.5' to 61.0 distorted layers to 1/2" CL & SP 50% each 61.0' to 65.5' No recovery
Pull 11 65.	.5 to 70.5	-9.3 to -14.3	65.5' to 61.0' distorted mix fine-medium SP & CL 61.0' to 67.5' light grey, fine to medium quartz; SP 67.5' to 70.5' No recovery
Pull 12 70.	.5 to 75.5	-14.3 to -19.3	70.5' to 75.5 No recovery
Pull 13 75.	.5 to 80.5	-19.3 to -24.3	75.5' to 76.0' brown, coarse fine sand w/trace silt, cave? 76.0' to 78.0' light grey fine quartz, occasional distorted 1/4" layer clay, SP 78.0' to 80.5' No recovery

COOPER RIVER
REDIVERSION PROJECT
SUPPLEMENTARY LOG

GROUND ELEVATION 56.2

HOLE NO.70

Depth

Sample No. In feet

Elevation

Pull 14 80.5 to 85.5

-24.3 to -29.3

Description

80.5' to 82.5' fine-medium quartz trace silt & soft shell, compare to loosely cemented SP & SM 82.5' to 85.5' Sandstone-Shale

#### HOLE NO. 71

GROUND ELEVATION 56.2

LOCATION: Station 602+00, 450' Left Centerline

Sample No.	Depth In Feet	Elevation	Description
Pull 1 36.0	to 39.0	20.2 to 17.2	36.0' - 36.5' Clay-sand, layers to 1/2" of dark grey clay & light grey fine quartz sand CL & SP  36.5' -36.8' Clay-dark grey w/two 1/4" layers sand CL  36.8' - 37.1' Sand-fine loosely cemented SP  37.1' -38.2' Clay dark grey layers to 1" w/1/2"layers sand CL  38.2' - 38.4' Sand, light grey, fine SP  38.4' - 38.8' Clay, dark grey CL  38.8' - 39.0' No recovery
Pull 2 39.0	0 to 42.0	17.2 to 14.2	39.0' - 39.4' Sand light grey, fine quartz, two 1/2" layers clay  39.4' - 42.0' Clay dark grey 2"-3" layers with 1"-2" layers fine light, grey quartz sand clay 60%, sand 40% CL & SP
Pull 3 42.	0 to 45.0	14.2 to 11.2	Sand, light grey fine quartz with occasional layer to 1/2" of dark grey clay, sand layers - 75% SP
Pull 4 45.	0 - 46.5	11.2 to 9.7	45.0' - 45.8' Clay, dark grey w/1/16" layers fine sand CL 45.8' - 46.2' Sand, light grey, fine quartz  46.2' - 46.5' Clay dark grey w/1/2" layers fine quartz sand, clay 80%  CL
Pull 5 46.	5 to 50.0	9.7 to 6.2	46.5' - 46.7' Clay, dark grey CL 46.7' - 47.4' Sand, light grey SP 47.4' - 50.0' Clay - Sand, layers to 3" of dark grey clay & light grey fine sand, CL&SP

## COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

GROUND ELEVATION 56.2

Sample No.	Depth In feet	Elevation	Description
Pull 6 50.0	0 to 54.0	6.2 to 2.2	Sand, light grey, fine-medium quartz, some coarse-fine shell, occasional 1/4" - 1/2" layer clay, SP
Pull 7 54.0	0 to 59.0	2.2 to -2.8	Sand, light grey fine to medium quartz SP
Pull 8 59.0	0 to 63.0	-2.8 to -6.8	Sand, light grey fine to medium quartz 61.0' -63.0' no recovery
Pull 9 63.6	0 to 66.0	-6.8 to -9.8	Sand, grey, fine-medium quartz, trace silt SP-SM
Pull 10 66.0	0 - 68.5	-9.8 to -12.3	Sand, light grey fine quartz, occasional paper thin layer of clay SP
Pull 11 68.	5 to 71.5	-12.3 to -15.3	Sand, light grey, fine, occasional thin, discontinuous layers of clay
Pull 12 71.	5 to 75.0	-15.3 to -18.8	Sand, light grey, fine quartz, 1/4" laver sandy clay at 70.0 SP
Pull 13 75.	0 to 78.0	-18.8 to -21.8	Sand, light grey fine quartz, scattered 1/4" - 1/2" SP
Pull 14 78.	0 to 81.0	-21.8 to -24.8	78.0' - 79.0 Sand, fine, grey SP 79.0' - 81.0 Sand, grey, medium -fine quartz, trace-some silt SP - SM
Pull 15 81.	0 to 84.0	24.8 to 27.8	81.0' - 82.1' Sand. brownish prey fine medium quartz, trace decommosed shell, partly cemented SM 82.1' - 83.0 Sandstone hard silty 83.0' - 84.0' Shale-sandstone, compact cemented, hard

HOLE NO. 72

GROUND ELEVATION 60.1

LOCATION: Station 602+00, 500' Left Centerline

Sample N	Depth o. <u>In Feet</u>	Elevation	Description
1	0.0 to 0.2	60.1 to 59.9	Sand, brown medium-fine quartz, some silt
2	0.2 to 1.2	59.9 to 58.9	Sand, brown, coarse-fine quartz silty clavey SC
3	5.0 to 5.2	55.1 to 54.9	Sand, red brown, coarse-fine quartz, clavev stiff SC
4	8.0 to 8.2	52.1 to 51.9	Sand, red brown tan & grev coarse-fine quartz, clavey stiff SC
5	10.0 to 10.2	50.1 to 49.9	Sand, buff, coarse-fine quartz trace clavev silt, occasional gravel SP - SM
6	15.0 to 17.1	45.1 to 43.0	Sand, grey fine quartz trace silt, discontinuous paper thin layers of clay SP - SM
7	20.0 to 21.5	40.1 to 38.6	Sand, tan, medium-fine quartz, trace silt SP - SM
8	25.0 to 26.5	35.1 to 33.6	Sand, tan, medium-fine quartz some pockets & discontinuous paper thin lavers clay trace some silt
9	30.0 to 31.5	30.1 to 28.6	Clay, lavers dark previolav and fine light previouantz sand - 1/4"  CL & SP - SM

# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. 74

GROUND ELEVATION 57.8

LOCATION:

Sample No	Depth In Feet	Elevation	Description
Jar 1	0.9 to 1.0	57.8 to 56.8	Clav, red, fine, sandy CL
Jar 2	4.8 to 5.0	53.0 to 52.8	Sand, red coarse - fine quartz some clay SC
Jar 3	9.8 to 10.0	48.0 to 47.8	Sand, brown, coarse-fine quartz, some silt SM
Jar 4	19.8 to 20.0	38.0 to 37.8	Sand, tan, fine quartz trace to some silt $SP - SM$
Jar 5	20.8 to 21.0	37.0 to 36.8	Sand, tan and grey, fine quartz, some clay SC
Jar 6	24.0 to 24.2	33.8 to 33.6	Clay-silt, thin layers of dark grey clay and silt CL & ML

#### HOLE NO. IT-1-A

GROUND ELEVATION 57.5

LOCATION: Station 590+13, 665' Right Centerline

Sample No.	Depth In Feet	Elevation	Description
1	1.5 to 10.5	56.0 to 47.0	Sand, brown-red brown coarse-fine quartz, some silty clav, some of sample is stiff SC
2	10.5 to 13.5	47.0 to 43.0	Sand yellow brown coarse-fine quartz, some subrounded gravel to 1", trace-some silt, some pockets to 1" of clavev sand SM & SC
3	13.5 to 16.5	43.0 to 41.5	Sand, tan-light grev, fine-verv fine quartz, trace-some silt, few pockets & paper thin layers of clav
4	16.5 to 24.0	41.0 to 33.5	Sand, light grev, fine to very fine, quartz w/discontinuous, paper thin, layers of dark grev clay, trace silt SP-SM
5	24.0 to 25.0	33.5 to 32.5	Sand, grey, medium-fine quartz, some silt, trace-coarse-fine shell, few pieces gravel size shell, partly cemented SM

# COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. IT-2A

GROUND ELEVATION 63.7

LOCATION: Station 580+85, 1,050 Right Centerline

Sample No.	Depth In Feet	Elevation	Description
1	0.0 to 3.0	63.7 to 60.7	Sand, brown, fine quartz some silt & root material SM
2	3.0 to 10.0	60.7 to 50.7	Clay, vellow-red brown, w/streaks of grey, fine sand Stiff CL
3	10.0 to 15.0	50.7 to 48.7	Silt, yellow-red brown & light grey, fine sandy clayey, firm MH
4	15.0 to 16.0	48.7 to 47.7	Clay, red & grey, w/pockets to 1/2" of coarse-fine yellow brown sand CL
5	16.0 to 20.0	47.7 to 43.7	Sand, yellow brown medium - coarse quartz, trace - some claySC
6	20.0 to 25.0	43.7 to 38.7	Sand, tan, coarse-fine quartz, some clay $SC$
7	25.0 to 35.0	38.7 to 28.7	Sand, yellow brown, fine-medium quartz, trace-some silt SM
8	35.0 to 37.5	28.7 to 17.3	Sand, red brown, medium fine quartz, trace-some silt SP-SM
9	37.5 to 39.5	17.3 to 15.3	Sand, grey, medium-fine quartz trace-some silt, pockets of clay to 1" SP-SM & CL

HOLE NO. IT - 1B

GROUND ELEVATION 58.7

LOCATION: Station 588+30, 350' Right Centerline

Sample No	Depth . In Feet	Elevation	Description
1	0.00 to 1.5	58.7 to 57.2	Sand, brown, fine quartz some silt SM
2	1.5 to 4.5	57.2 to 54.2	Sand, red-vellow brown & grev, fine quartz, clavev SC
3	4.5 to 9.0	54.2 to 49.7	Sand, light grev w/vellow brown fine quartz, clavev, stiff SC
4	9.0 to 20.5	49.7 to 38.2	Sand, red brown, fine-coarse quartz, clavev SC
5	20.5 to 22.5	38.2 to 36.2	Sand, vellow brown, medium to fine quartz, some silt, some lavers & nockets of light prev silty clay
6	22.5 to 31.5	36.2 to 27.2	Sand, vellow brown fine to medium quartz, some lavers and pockets of grev clay to 1" SM
7	31.5 to 37.5	27.2 to 21.2	Sand, red brown, fine-coarse quartz, trace of silt SP-SM
8	37.5 to 40.5	21.2 to 18.2	Sand, grey brown, medium to fine quartz trace-some silt, some pockets of light grey silt & dark grey clay SM

## COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. 2B

GROUND ELEVATION 54.8

LOCATION: Station 585+20, 1,110 Right Centerline

Sample No	Depth In Feet	Elevation	Description
. 1	1.5 to 2.0	53.3 to 52.8	Clay, light grey, firm, some fine quartz CL
2	9.0 to 10.5	45.8 to 44.3	Sand, tan, fine quartz trace - some silt, some pockets clay to 1/4" SM
3	12.0 to 13.5	42.8 to 41.3	Sand, grev fine quartz trace - some silty clay, few cemented pockets to 1/2" SC
4	19.5 to 21.0	35.3 to 33.8	Sand, grew fine quartz trace - some silty claw SC
5	23.0 to 23.5	31.8 to 31.3	Sand, grey fine quartz some silt, partly cemented, few pockets clay to 1/2" SM

HOLE NO. IT-2B-1

GROUND ELEVATION 54.8

LOCATION: Station 585+20, 1,110 right Centerline

Sample No	Depth o. In Feet	Elevation	Description
1	0 to 1.5	54.8 to 53.3	Sand, brown-grev fine quartz, silty, clavey, some root material SC
2	1.5 to 3.0	53.3 to 51.8	Clay, tan-light erey, highly plastic, firm, trace of fine sand CH
3	3.0 to 4.5	51.8 to 50.3	Clay, grev, few small pockets to 1" of fine quartz sand, stiff CH
4	4.5 to 6.0	50.3 to 48.8	Clav, grev firm, fine sandv CH
5	6.0 to 6.5	48.8 to 48.3	Clay, grey firm, fine sandy CH
6	6.5 to 7.5	48.3 to 47.3	Sand, dark grev fine-medium quartz, siltv clayey SC
7	7.5 to 8.5	47.3 to 46.3	Sand, dark grev, fine-medium quartz, silty clayev SC
8	8.5 to 9.0	46.3 to 45.8	Sand, dark grev fine-medium silty, clayev, mixed w/trace - some silt SC & SP-SM
9	9.0 to 10.5	45.8 to 44.3	Sand, layers to 1/2" of grev, fine-medium silty clayev sand & fine-coarse sand w/a trace to some silt, SC&SP-SM
10	10.5 to 12.0	44.3 to 42.8	Sand, tan-light grey, fine- medium quartz, trace-silt & clav SP-SM & SP-SC
11	12.0 to 13.5	42.8 to 41.3	Sand, tan, fine quartz trace - some silty clav occasional piece of gravel SC
12	13.5 to 15.0	41.3 to 39.8	Sand, tan & grev fine quartz, trace - some silty clay SP-SC
13	15.0 to 16.0	39.8 to 38.8	Sand, grev-tan, fine quartz, some clav, occasional nebble SC

GROUND ELEVATION 54.8

HOLE NO.IT 2B-1

Sample No.	Depth In feet	Elevation	Description
14 16.0	0 to 16.5	38.8 to 38.3	Sand, light grey fine quartz w/layers and pockets to 1/4" dark grey clayey sand SP & SC
15 16.	5 to 18.0	38.3 to36.8	Sand, grey fine quartz, some silt, w/layers & pockets to 1/4" of dark grey clay SM & CL
17 18.	5 to 19.5	36.3 to 35.3	Sand, fine quartz, silty w/discontinuous taper thin layers of clay SM
18 19.	5 to 21.0	35.3'to 33.8	Sand-clay, marble cake mixture of fine-medium quartz & dark grev clay SP & CL
19 21.0	0 to 22.5	33.8 to 32.3	Sand grey fine-medium quartz, some silt clay, some clay pockets to 1/4" SC
20 22.	5 to 24.0	32.3 to 30.8	Sand. grey fine-medium quartz, some silty clay, some 1.4" pockets of fine, clean sand SC
21 24.0	0 to 25.5	30.8 to 29.3	Clay dark grey, with paper thin layers of fine sand having a trace - some silt & clay CL
22 25.	5 to 27.0	29.3 to 27.8	Silt, fine, sandy, some coarse shell, clayey, soft, sticky ML
23 27.0	0 to 28.5	27.8 to 26.3	Sand, grev fine quartz, clayey, silty, soft sticky SC & SM
24 28.	5 to 30.0	26.3 to 24.8	Sand, grey, medium-fine quartz, some silt, occasional piece of gravel SM
25 30.0	0 to 31.5	24.8 to 23.3	Sand, grey, medium-fine, quartz, trace - some silt, some paper thin layers of dark grey clay SM & CL

### COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

GROUND ELEVATION 54.8

HOLE NO.IT 2B-1

Sample No.		epth n feet	Elevation	Description
26 31	1.5 t	co 33.0	23.3 to 21.8	Sand, grev, fine-medium quartz some silt
27 3:	3.0 t	o 34.5	21.8 to 20.3	Sand, grey, fine, quartz, some silt w/layers to 1/8" of dark grev clav, sticky  SM&CL
28 30	4.5 t	co 36.0	20.3 to 18.8	Sand, grev medium-fine quartz, some pockets & lavers to 1/4" of dark grev, clav
29 3	6.0 t	to 37.5	18.8 to 17.3	Sand, grev fine-coarse quartz, clayev, soft, stickv, occasional piece of gravel SC
30 3	7.5 t	to 38.0	17.3 to 16.8	Sand, grev, coarse - fine, some clavey silt, occasional coarse shell & fine gravel
31 3	18.0	to 39.0	16.8 to 15.8	Clav, dark grev w/paper thin layers of fine sand CL
32 3	9.0	to 40.3	15.8 to 14.3	Clay-sand, layers to 1/4" of dark grey clay & fine light prev quartz sand CL&SP
33 4	i0.5 i	to 41.5	14.3 to 13.3	Clay-sand, layers to 1/4" of dark grev clay & fine light grev, quartz, sand CL&SP
4	1.5	to 51.5	13.3 to 3.3	No recovery
34 5	52.5	to 53.5	2.3 to 1.3	Sand, light grey, fine quartz SP
35 5	55.0	to 56.5	-0.2 to -1.7	Sand, light prey, fine quartz SP

#### BY J. R. HARRIS

#### COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. IT-2C

GROUND ELEVATION 58.0

LOCATION: Station 582+62, 670' Right Centerline

Sample No	Depth In Feet	Elevation	Description
1	1.0 to 5.0	57.0 to 53.0	Sand, yellow-red brown, fine, quartz, silty clayey SC
2	5.0 to 10.0	53.0 to 48.0	Sand, yellow & red brown, fine quartz, clayey, stiff SC
3	10.0 to 15.0	48.0 to 43.0	Clay, with 1/4" - 1/8" layers of fine clayey sand CL
4	15.0 to 20.0	43.0 to 38.0	Sand, yellow brown, coarse-fine, quartz, some silty, clay SC
5	20.0 to 24.0	38.0 to 34.0	Sand, yellow brown, coarse fine quartz, some silty, clay, occasional rounded, gravel SC
6	24.0 to 30.0	34.0 to 28.0	Sand, yellow brown, fine quartz, some pockets & discontinuous paner thin lavers of clay, trace-some silt SM

#### COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. IT-2D

GROUND ELEVATION 58.9

LOCATION: Station 579+70, 1,440' Right Centerline

	Depth		
Sample No	. <u>In Feet</u>	Elevation	Pescription
1	1.0 to 5.0	57.9 to 53.9	Sand, brown-prev, fine quartz, trace to some silt, some pockets to 1/4" of clayey sand SM
2	5.0 to 10.0	53.9 to 48.9	Sand, light grey, fine quartz, clavey, stiff SC
3	10.0 to 15.0	48.9 to 43.9	Sand, vellow brown, coarse-fine quartz, some clay SC
4	15.0 to 20.0	43.9 to 38.9	Sand, vellow brown, fine quartz, trace-some silt, numerous clay pockets to 1/4" SM
5	20.0 to 22.5	38.9 to 36.4	Sand, grev, medium-fine, quartz, some lavers of dark grev clav to 1/8" trace - some silt SM&CL
6	22.5 to 24.0	36.4 to 34.9	Sand, light grev, fine-medium quartz, trace of medium-coarse shell, some silty clay, some cementing SC

#### COOPER RIVER REDIVERSION PROJECT SUPPLEMENTARY LOG

HOLE NO. IT-2E

GROUND ELEVATION 66.1

LOCATION: Station 577+10, 1,000' Right Centerline

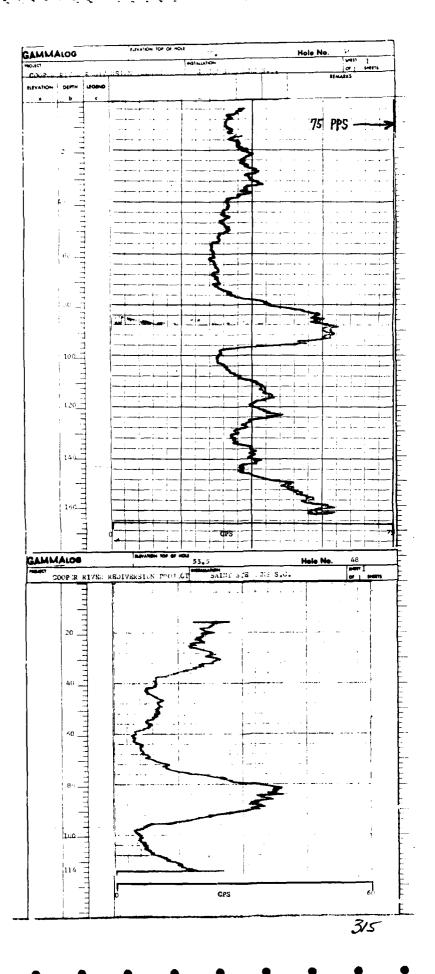
Sample No.	Depth In Feet	Elevation	Description
1 1	.0 to 4.5	65.1 to 61.6	Sand, tan, fine, quartz, trace silt, some pockets to 1/8" of orange brown clay SM
2 5	i.0 to 7.5	61.1 to 58.6	Clav, vellow-red brown & light grev, fine, sandy firm CL
3 1	.0.0 to 12.0	58.6 to 54.1	Clay, yellow-red brown, & light grey, silty, stiff CL
4 1	2.0 to 19.5	54.1 to 46.6	Sand, yellow brown, medium-coarse, some clav SC
5 1	9.5 to 30.0	46.6 to 36.1	Sand, yellow brown & light grev, fine, quartz, some silty, clay SC
6A 3	0.0 to 31.0	36.1 to 35.1	Limestone, medium to fine quartz and coarse-fine, shell cemented w/calcareous cement, some pockets of fine sand
6B 3	38.2 to 39.7	27.9 to 26.4	Sand, tan-brown, medium-fine quartz w/ some pockets to 1/8" of grey clay SP

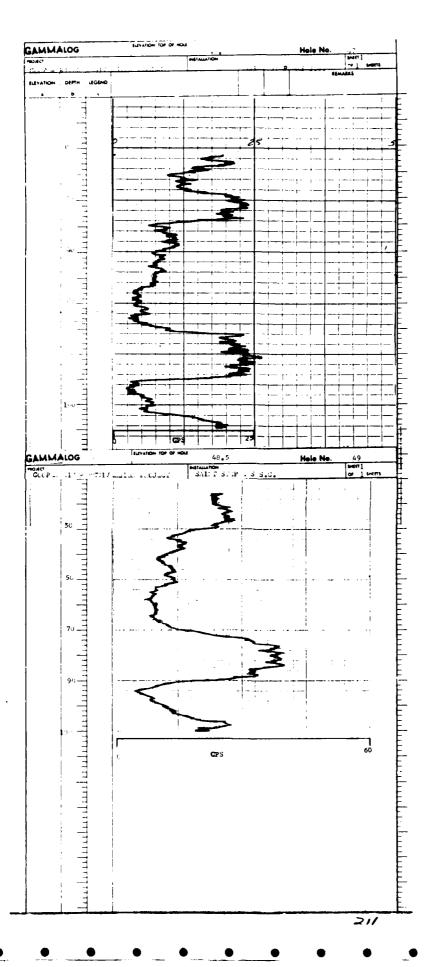
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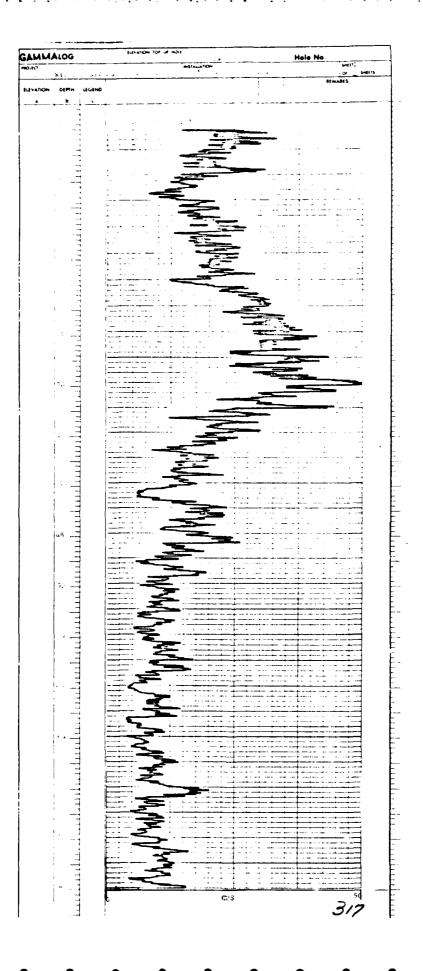
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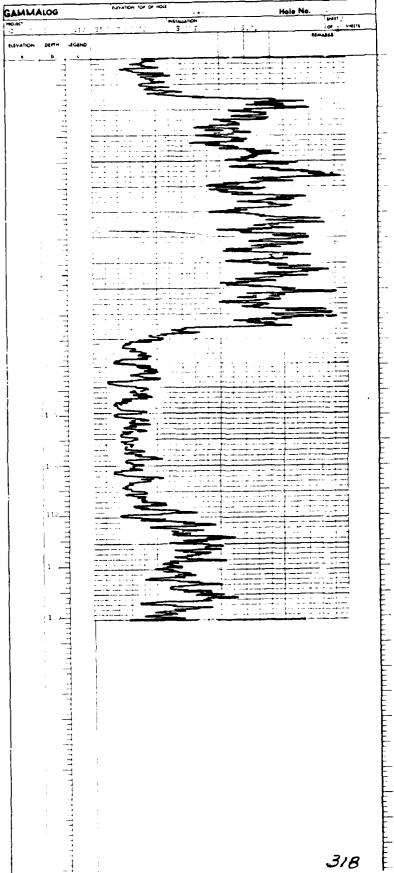
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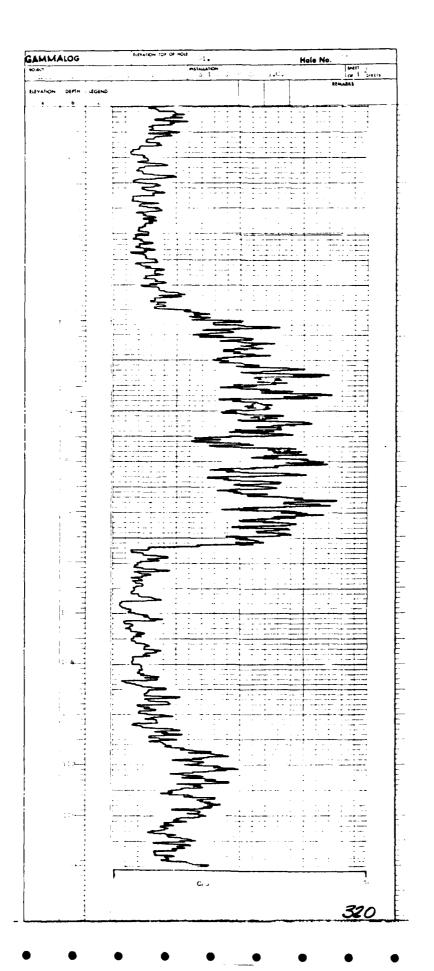


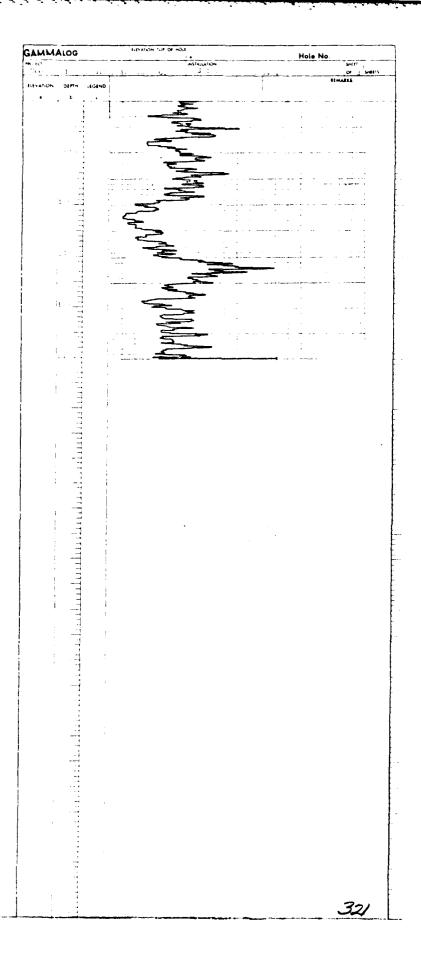


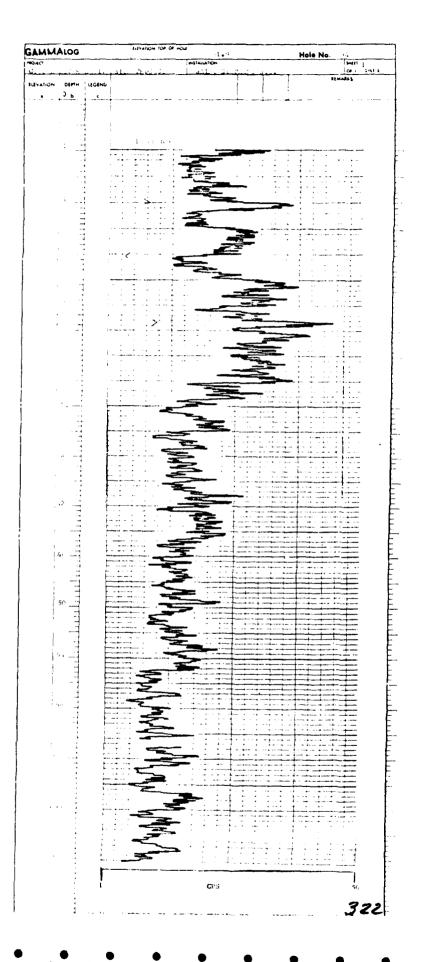


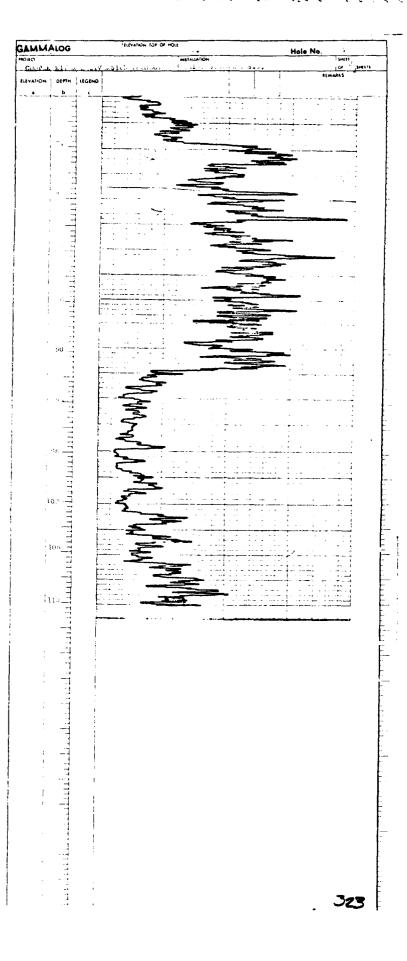


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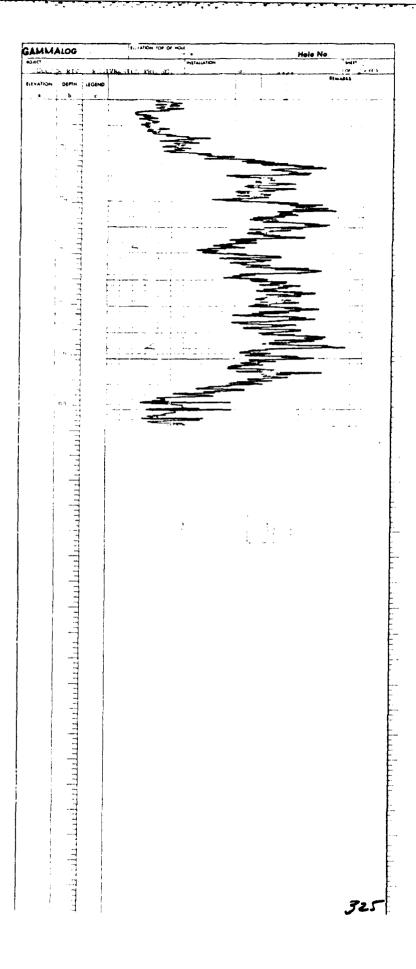






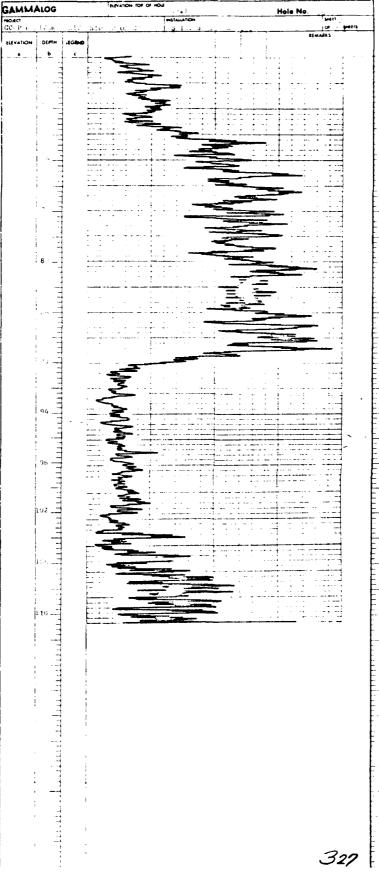
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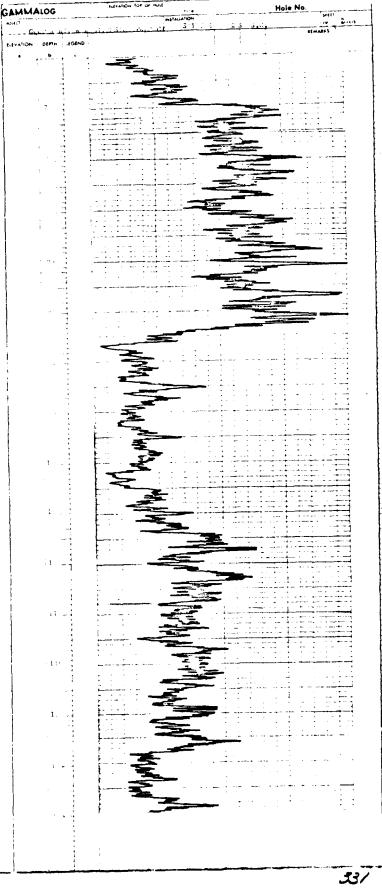
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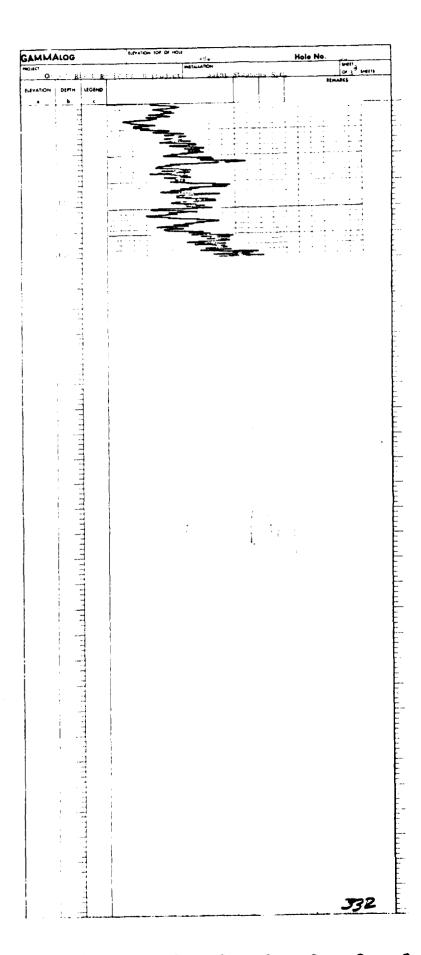
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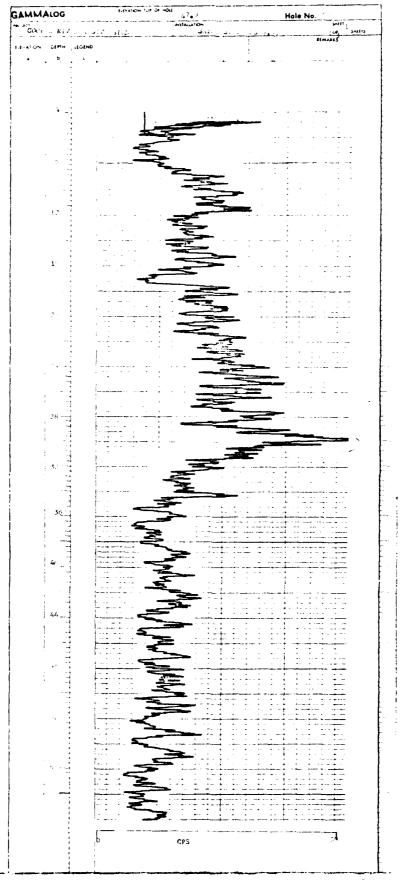
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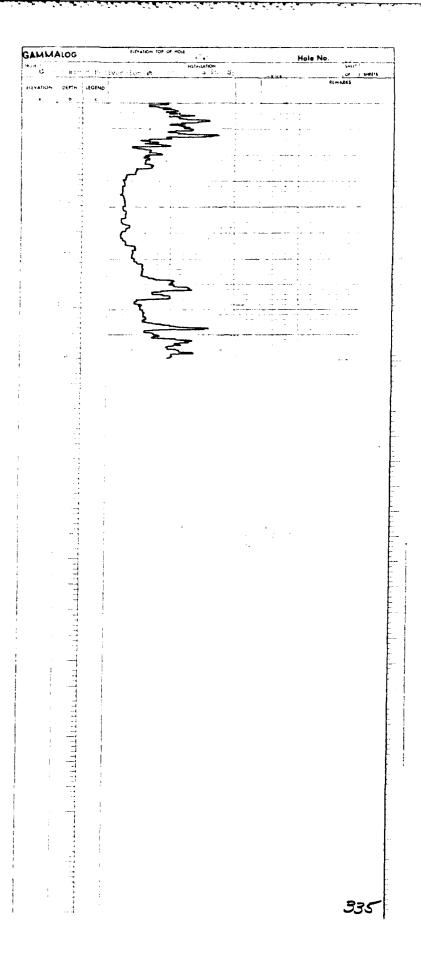


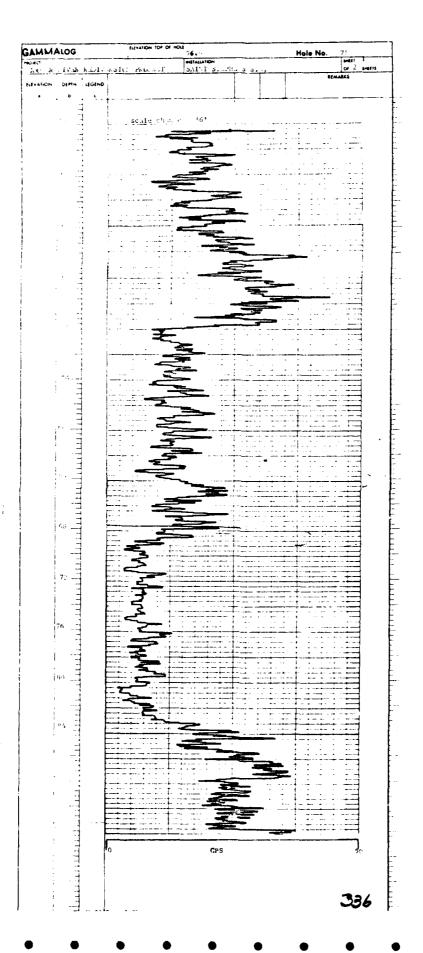


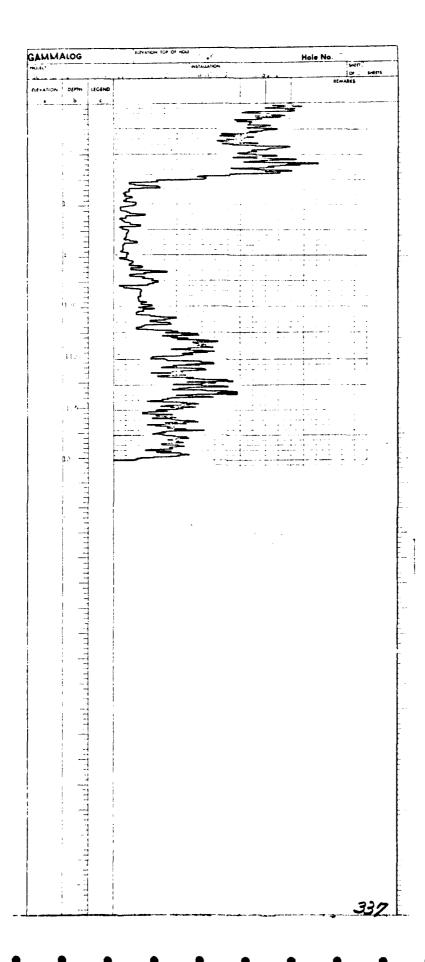
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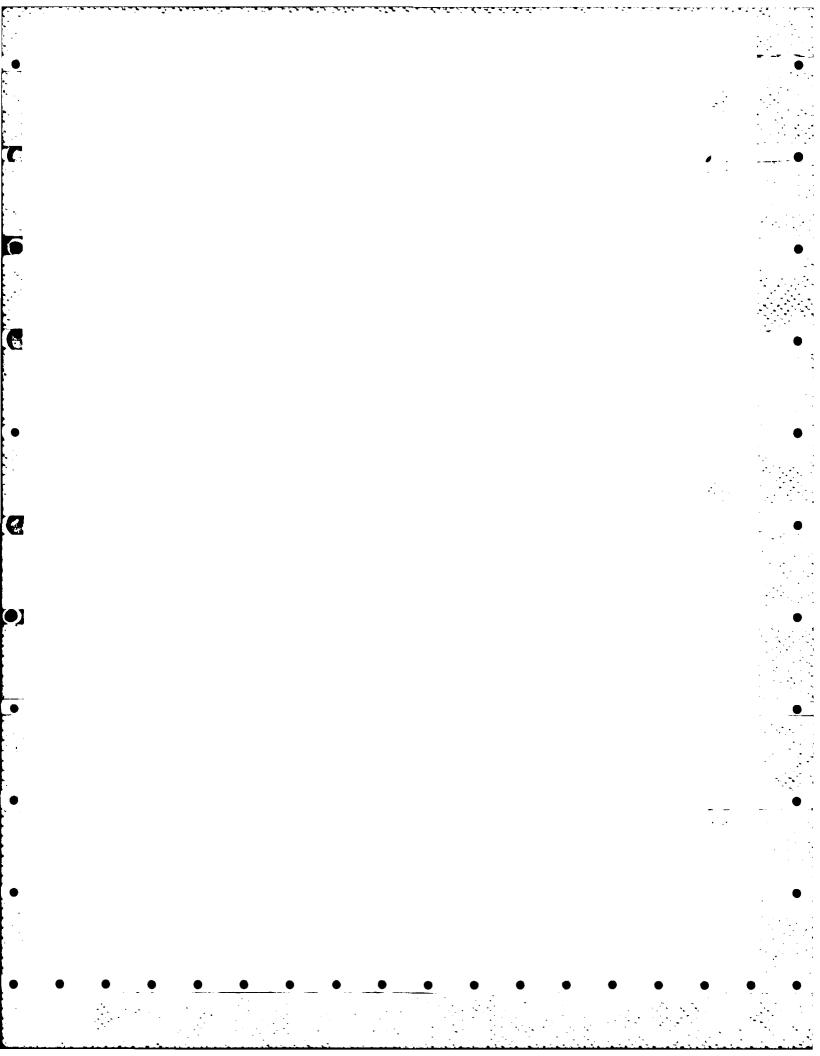
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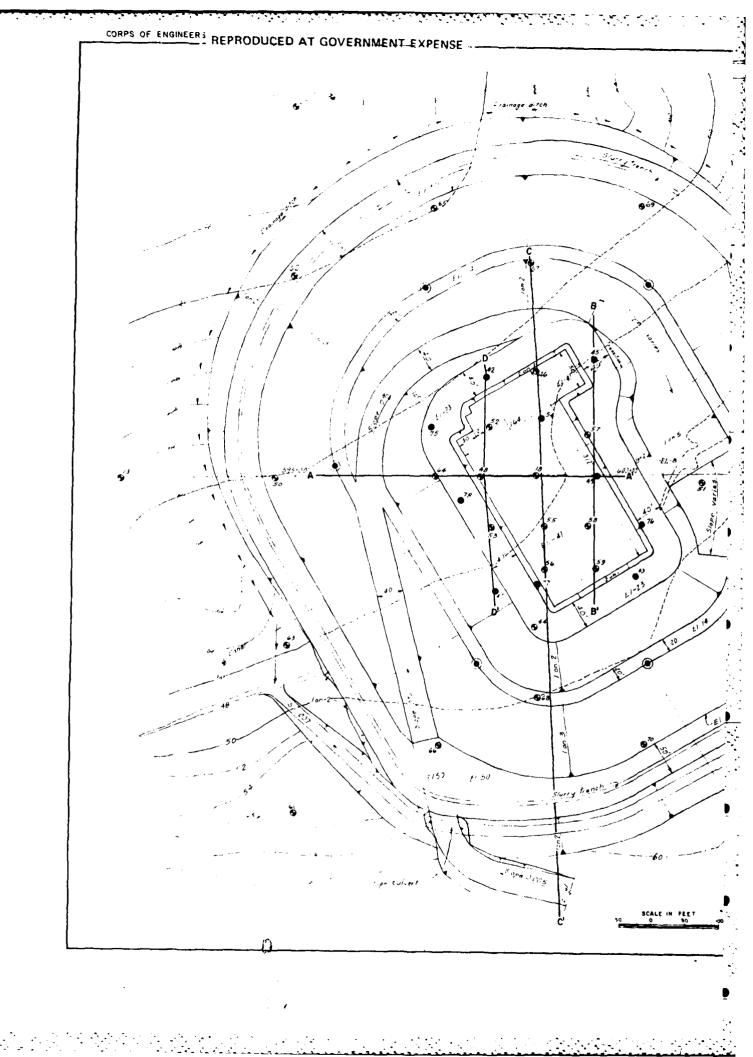
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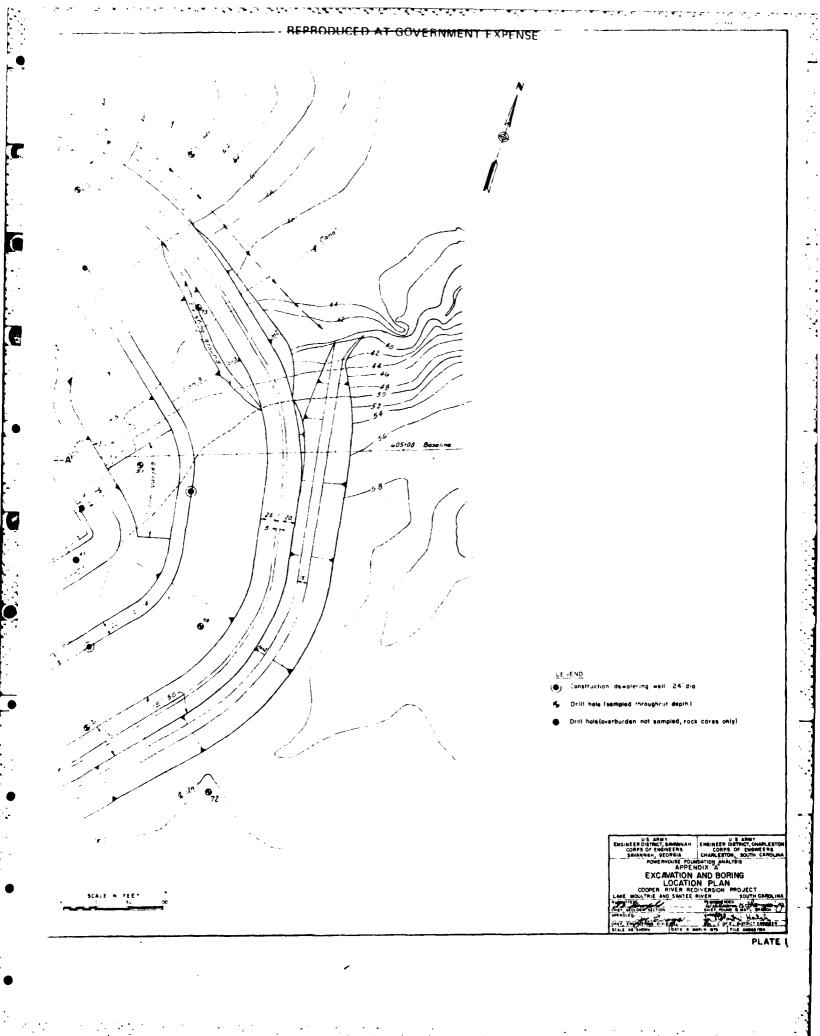


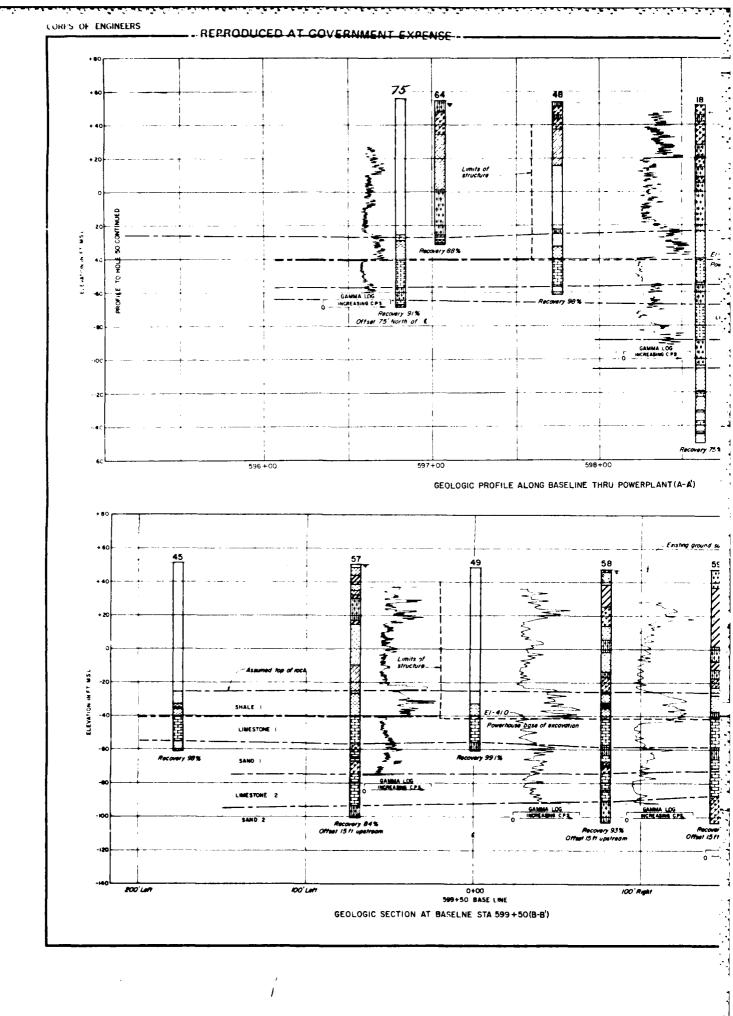


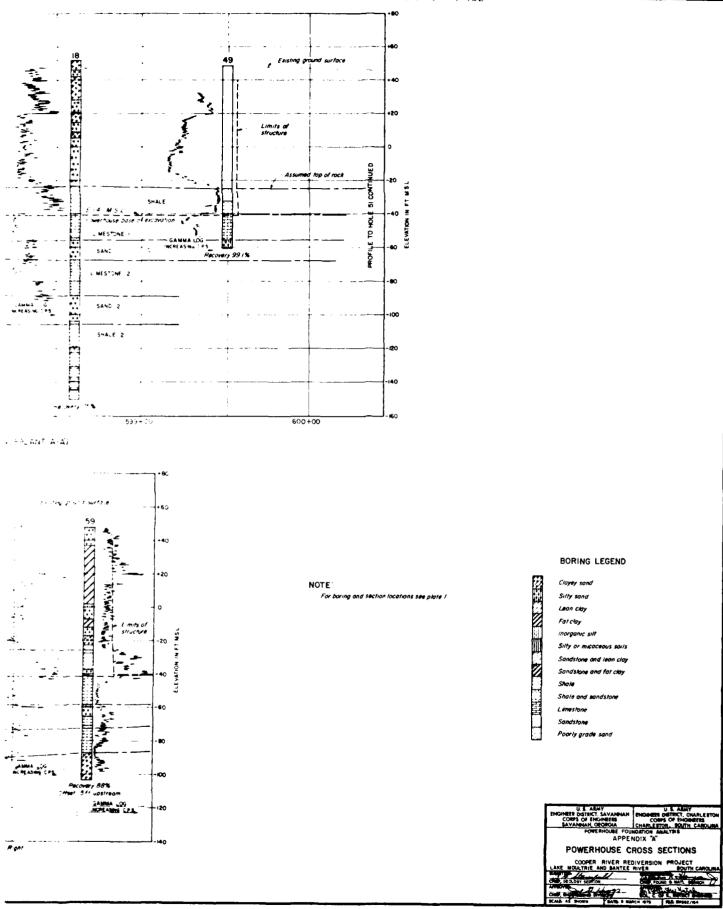


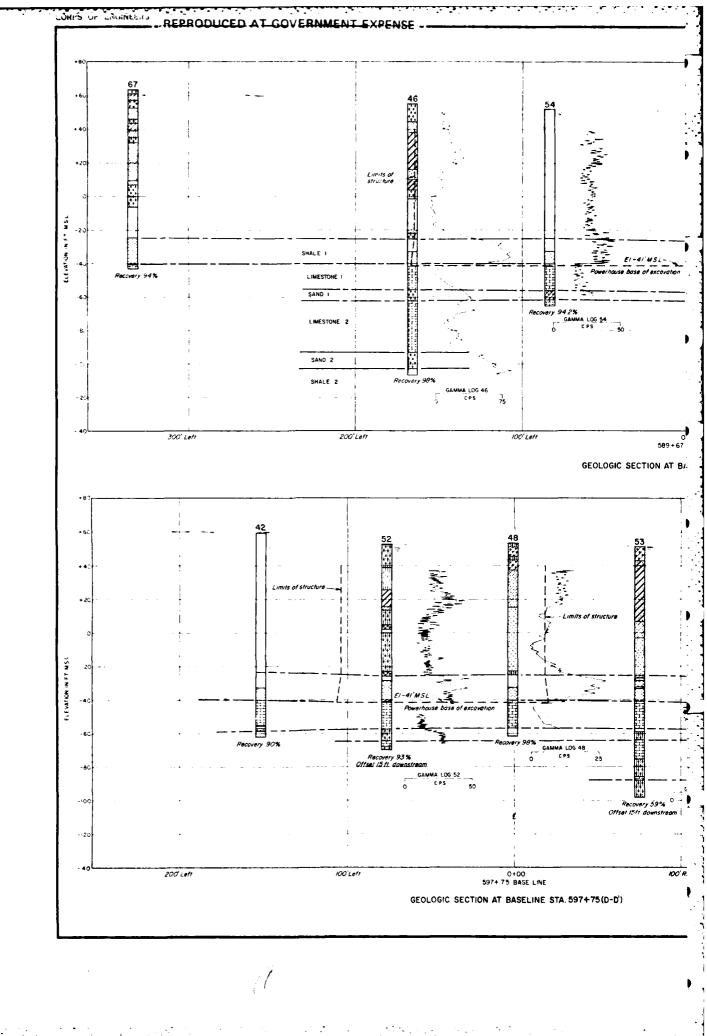


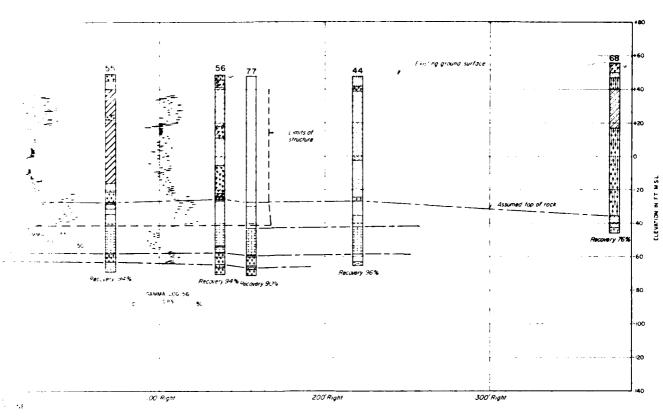




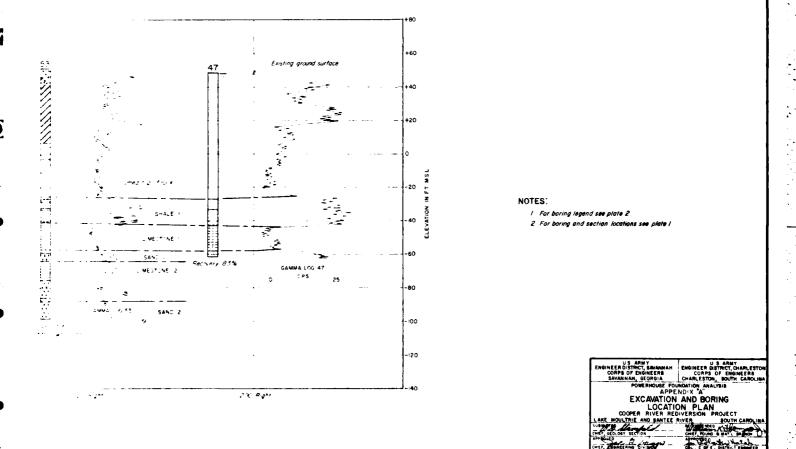








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